DEPARTMENT OF CITY PLANNING 100 LARKIN STREET SAN FRANCISCO CALIFORNIA 94102

San Francisco City Planning Commission

Environmental Impact Report

101 Montgomery Street

FINAL
EE 80.26
State Clearinghouse Number 80122308

Publication Date: January 16, 1981
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● Changes from the text of the Draft EIR are indicated by solid dots at the beginning of each revised section, paragraph or table.

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I. SUMMARY

A. PROJECT DESCRIPTION

The project sponsor, California Jones Company, in cooperation with Cahill Construction Company proposes to construct a 28-story office building fronting on Montgomery St. between Sutter and Bush Sts. The project would contain 27 floors of office space, one floor of retail spaces at street-level, and one subsurface parking and service level for 12 to 15 vehicles. The project would also include a surface loading area on Trinity St., opposite the building site. The gross floor area of the project would be about 277,000 sq. ft.

The proposed building would consist of the main, 28-story tower and a connecting, two-story structure immediately to its north. The main tower would be basically rectilinear in form, 60 ft. deep along its Sutter St. frontage; 170 ft. wide along its Montgomery St. frontage; and approximately 405 ft. high to the top of its mechanical penthouse. The connecting, two-story structure fronting on Montgomery St. would be approximately 45 ft. deep, 20 ft. wide and 38 ft. high.

Along the Sutter and Montgomery St. frontages of the project, the ground floor of the main building would be set back about 10 ft. from the building's outside column face to create a pedestrian arcade. The 60 ft. Sutter St. frontage of the building would also be set back from the property line to create a widened sidewalk space 15 ft. across.

The exterior surfaces of the building would consist of pre-cast concrete panels and solar gray glass configured to produce segmental, bowed, bay projections treated with sculptured ornamental cornice bands and wrought iron railings. The project sponsor also proposes to install street trees and planters, and to pave adjacent pedestrian surfaces with brick.

B. ENVIRONMENTAL EFFECTS OF PROJECT

The proposed project would include demolition of six buildings, five of which have received recognition for architectural merit. Two of the structures, the California Pacific Building and the Steil Building are rated "B" in the Heritage Survey, three are rated "C". The California Pacific Building is also rated "2" in City's Architectural Survey, the Steil Building is rated "1", and the remaining three buildings are rated "0".

The project would comply with zoning, height, bulk and floor area requirements of the City Planning Code. In general, the project would represent a departure in style and scale from neighboring older development to the west, and would represent a departure in style from neighboring older development to the south and north. Various design features, however, would be intended to complement nearby older development. The project would be generally consistent in style and scale with neighboring recent highrise office development in the financial district.

The project would be visible in the City skyline as seen from higher topography and buildings to the west, northwest, and south. Because the project would occupy a corner site and would be taller than existing structures on the site, it would be visually more prominent than the existing structures as seen from neighboring streets and buildings. The project would interrupt some views of the Bay from neighboring office buildings to the south and west, and would interrupt some views of distant open space to the south and west from neighboring office buildings to the north and east.

In general, the project would cast more extensive shadows than those cast by existing buildings. At street level, this effect would be most noticeable along Montgomery St. during some afternoon hours throughout most of the year. No existing public parks or plazas would be affected by shadows cast by the project. Wind speed ratios in the vicinity of the project site would decrease as much as 25% and increase as much as 30%, depending upon wind direction and observer location. Under northwest wind conditions, the project would increase wind speed ratios along Bush and Montgomery Sts. by less than 10%, and would increase ratios near Sutter and Montgomery Sts. by as much as 20%.

Under west wind conditions, wind speed ratios would increase by as much as 30% near the intersection of Bush and Montgomery Sts. and along the north side of Sutter St. east of the site; and by about 20% along Montgomery St. adjacent to the project.

The project would require demolition of approximately 50,000 gross sq. ft. of office and retail space and would result in the construction of about 277,000 gross sq. ft., a net gain of about 227,000 gross sq. ft.

The project would also remove about 20,000 net leasable sq. ft. of retail/restaurant space and would replace it with about 5,900 net leasable sq. ft. The number of street-level retail/restaurant tenants would be reduced from 13 to between four and ten. Sixty business tenants employing about 175 persons would be displaced from the project site.

The project would accommodate approximately 1,060 permanent jobs, an increase of about 890 from the 175 jobs now accommodated at the project site. Through the multiplier effect, these 890 jobs would support a projected 920 additional jobs throughout the Bay Area. Project construction would directly provide about 140 person-years of construction labor, and about 220 additional labor years through the multiplier effect.

The project would also contribute to increasing housing prices and declining vacancy rates in San Francisco.

The project would generate 27% more public revenues per square foot than do the existing uses on the site, and would probably improve the fiscal situation of the City. Because of the lack of complete cost data, however, conclusions concerning the overall fiscal impact of the project must be tentative.

Construction traffic would reduce the carrying capacities of access streets and haul routes during approximately 16 months of demolition, excavation, steel erection, and exterior and interior finishing.

The project would provide 12 to 15 parking spaces, but would generate a projected worst-case daily parking demand of about 390 parking spaces, thus resulting in a projected daily parking deficit of about 375 project-related spaces.

Traffic generated by the on-site parking spaces would have a negligible effect upon levels of service on neighboring streets; all project-related traffic would have greater, but statistically insignificant, effects on levels of service at critical downtown intersections and freeway access points.

The project would increase riderships and demand-to-capacity ratios by no more than 1% on any public transit system. These increases would not be statistically significant.

Peak-hour pedestrian volumes in the immediate vicinity of the project site would increase by as much as 11%, but would not result in a change in pedestrian flow regimes.

Demolition, earthmoving, and construction activities would affect local air quality conditions, especially particulate (dust) concentrations, for approximately one year. Long-term air quality impacts resulting primarily from increased vehicular emissions would have no measurable impact on city or regional concentrations, however, and would not increase frequencies of standards violations.

The project would be designed and constructed to conform to minimum standards for energy conservation established by the California Energy Commission.

C. CUMULATIVE EFFECTS OF DOWNTOWN DEVELOPMENT

The proposed project, together with other major downtown office buildings under construction or proposed, would add approximately 10.9 million gross sq. ft. to the 59 million gross sq. ft. of office space that now exist in the City. This development would continue a trend of regional growth in service-sector and office headquarters activities. To the extent that this

employment growth would exceed growth in available housing, it would also tend to put upward pressure on local housing prices.

In general, available information suggests that new office development in San Francisco generates greater revenues relative to costs than does existing development, as long as new development continues. Due to data limitations, however, this conclusion is tentative.

Traffic due to cumulative downtown development would decrease calculated vehicular levels of service at all five downtown access intersections examined in this report. Parking demand due to cumulative development would produce a parking deficit of approximately 3,025 spaces in the 28-block study area within walking distance of the project site. Increases in demand for public transportation services would result in a spreading of peak-of-the-peak ridership conditions on most carriers, with increased incidents of overloading most likely to occur on Muni, Golden Gate Transit motor coaches and BART transbay trains.

Cumulative downtown development would also contribute to local and regional accumulations of hydrocarbons, nitrogen oxides, particulates, sulphur oxides and carbon monoxide, and would impede attainment of the objectives of the 1979 Bay Area Air Quality Plan.

D. MAJOR MITIGATION MEASURES

Mitigation measures proposed as part of the project include:

- Provision of street-level retail uses, widened sidewalks, masonry paving, street trees and other landscaping, and a pedestrian arcade, all of which would help provide pedestrian scale and interest;

- Provision of light to medium color values, articulated exterior surfaces, and ornamentation intended to complement neighboring older buildings;

- Retention of the Alexander Building, rated "B" in the Heritage Survey;

- Compliance with California Energy Commission minimum standards for energy conservation and Federal Energy Building Temperature Restrictions in the operation of heating, ventilating and air conditioning equipment; and,

- Provision of an internal security system, private security personnel, and life safety systems.

Mitigation measures under consideration by the project sponsor include:

- Contribution of funds for maintaining and augmenting public transportation service, in an amount proportionate to the demand created by the project, should an appropriate funding mechanism be required by the City;

- Contribution to a Housing Development Fund or similar program, should an appropriate funding mechanism be required by the City;

- Apply efforts to build, or cause to be built, new housing units and/or rehabilitate, or cause to be rehabilitated, substandard housing units in the San Francisco Bay Area, with the total number to be determined in cooperation with the Department of City Planning.

- Encouraging transit use by providing for on-site sale of BART tickets and Muni passes;

- Encouraging a tenant carpool/vanpool system by providing a central clearinghouse for carpool information and by providing preferential parking for carpools, vanpools and compact cars;

- Encouraging tenant firms to implement a flextime system for employee working hours designed to reduce peaks of congestion in the transportation system; and,

- Having a geotechnical report prepared for the project by an appropriately licensed professional, and complying with the recommendations of that report for foundation design and site preparation.

E. ALTERNATIVES

Alternative 1, the no-project alternative, would retain the existing five historic structures on the project site.

Alternative 2 would consist of a 34-story, 475-ft. office tower with street-level retail uses. The tower would approach the 500-ft. height limit at the project site and would preserve the California Pacific Building and the Steil Building.

Alternative 3 would consist of a 29-story, 415-ft. office tower with street-level retail uses. The tower would be stepped back from Sutter St. at its upper five levels.

Alternative 4 would consist of a 26-story 380 ft. office tower with street-level retail uses. This alternative would avoid demolition of the California Pacific Building, but would require demolition of the four other structures on the project site.

Alternative 5 would be to restore, remodel, and reinforce the existing five buildings on the project site.

Alternative 6 would consist of a structure that would occupy the same site and building envelope, and contain the same gross floor area, as the proposed project, but would, contain approximately 48 housing units as well as office and street-level retail uses.

II. PROJECT DESCRIPTION

A. SPONSOR'S OBJECTIVES

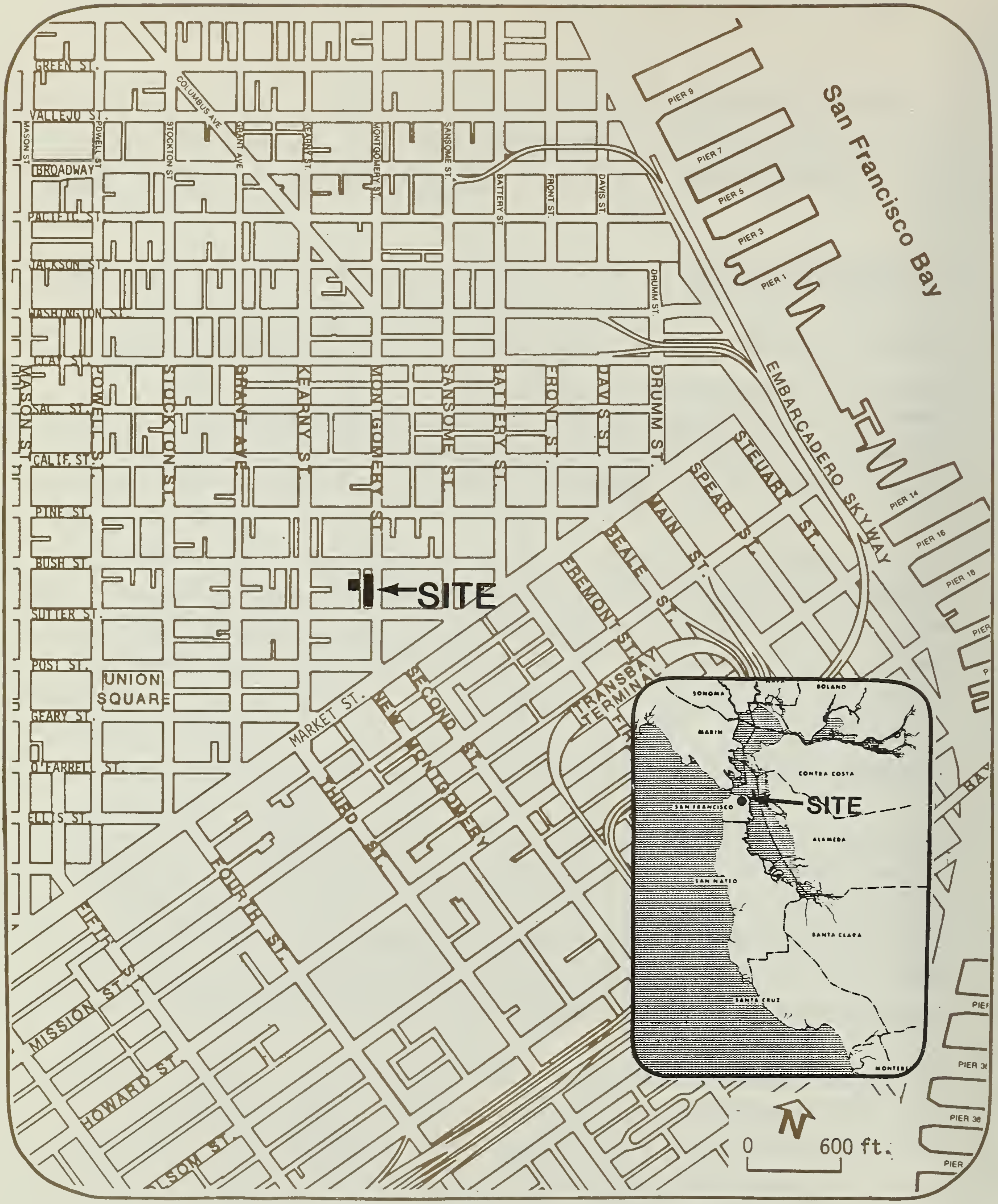
The project sponsor, California Jones Company, in cooperation with Cahill Construction Company, proposes to construct an office building in the Financial District of San Francisco. The sponsor's objectives are to realize a reasonable return on investment by replacing six older and smaller structures with a single, modern, highrise office building.

It is the sponsor's intent that the project complement both the existing highrise structures along Montgomery St. and smaller neighboring historic structures, while responding to the requirements of the modern business community./1/ Project architects are William Schuppel and Associates of San Francisco.

B. PROJECT LOCATION

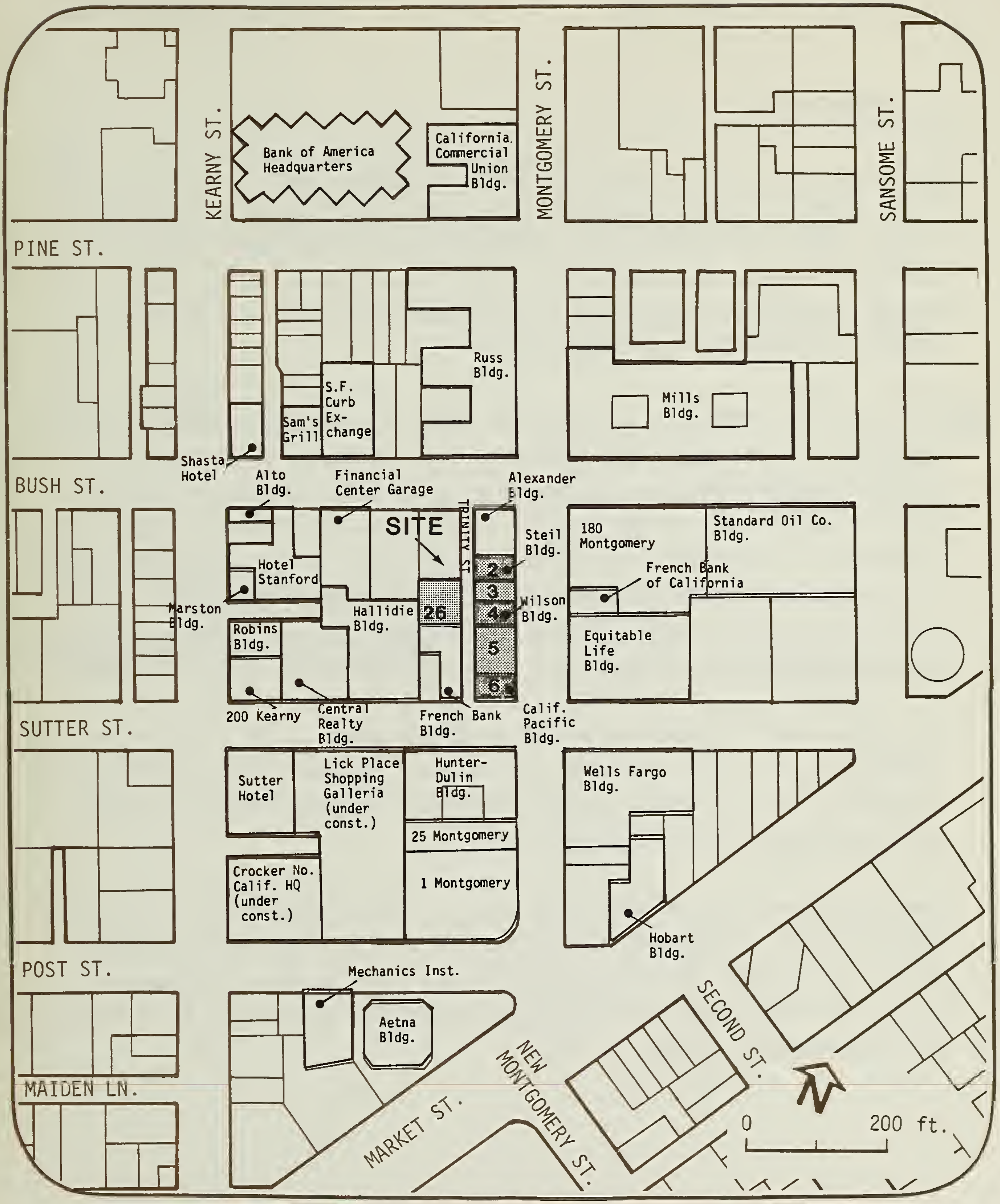
The project site consists of Lots 2, 3, 4, 5, 6 and 26 in Assessor's Block No. 288 (see Figure 1)./2/ The building site (Lots 2, 3, 4, 5 and 6) is bounded by Montgomery St. on the east, Sutter St. on the south, Trinity St. on the west, and the Alexander Building (149-157 Montgomery St.) on the north (see Figure 2, p. 10). The proposed surface loading area (Lot 26) is bounded on the east by Trinity St. and on the south, west and north by adjacent buildings.

The site is located in the western portion of the Financial District, one block from the Montgomery Station of the Market St. subway. The station serves the Bay Area Rapid Transit (BART) system and the Muni Metro light rail system. The identities of other major buildings in the vicinity of the site are shown in Figure 2, p. 10.



SOURCE: Environmental Science Associates, Inc.

FIGURE 1: SITE LOCATION



NOTES

- Project Block is Assessor's Block No. 288
- Lot Nos. are indicated on project site.

FIGURE 2: PROJECT SITE AND VICINITY

SOURCE: Environmental Science Associates, Inc.

C. PROJECT PLANS

The project would be a 28-story building containing retail uses on its ground level, bank uses on its second level, and bank and office uses on its upper levels. The project would also include a basement level containing 12-15 parking spaces and two loading bays; a roof level containing an office penthouse and public observation area; and a surface loading area on Trinity St., opposite the building site.

The proposed loading area in Trinity St. (Lot 26) would be screened with an ornamental iron fence for off-hours security. Access to the loading area would be provided through a rolling gate in the fence. Landscaped planters with a flowering hedge material would also be provided to screen views of the loading area from Trinity St. Plant materials which are being considered for landscaping the Trinity St. loading area include: hypericum aruim, raphioleptis orata, clavia minialta, sarcococca rusci, brunfelsia calysina, pittosporum tobira and ficus pumila. These plants require little sunlight.

The project would contain approximately 277,000 gross sq. ft. (254,000 net leasable sq. ft.), distributed by use and floor as shown below (see Table 1). A tentative lease agreement has been reached with only one tenant, a bank, which would occupy the second floor.

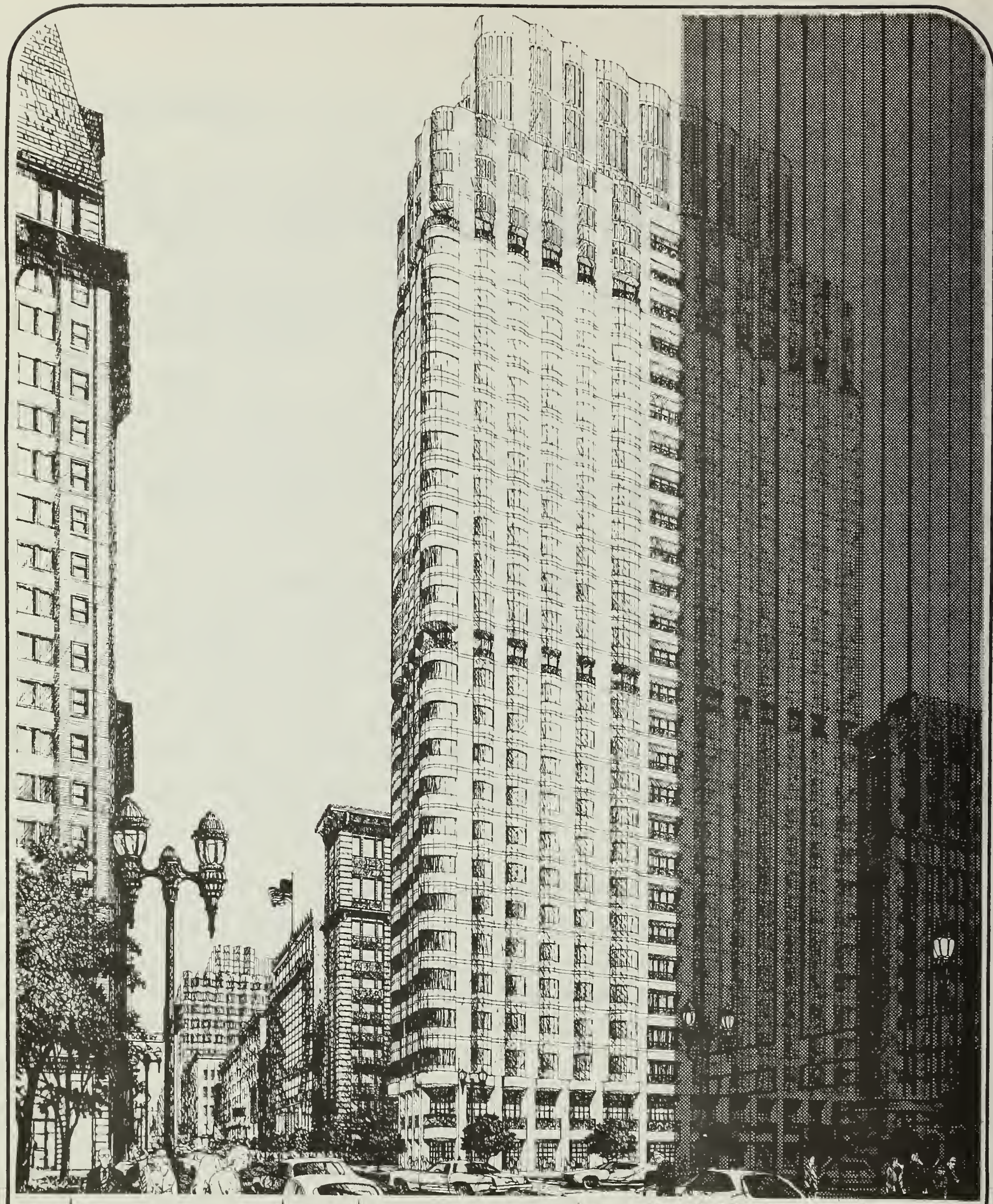
The building would be basically rectilinear in form (see Figures 3, 4, 5, and 6, pp. 12-15). Its maximum exterior horizontal dimensions would be about 60 ft. on its Sutter St. frontage and 190 ft. (170 ft. above a height of 35 ft.) on its Montgomery St. frontage; its height would be 405 ft. to the top of the mechanical penthouse.

TABLE 1: PROPOSED FLOOR AREAS AND USES (sq. ft.)

Proposed Project:	Ground Floor		Second Floor		Floors 3-28		Total	
	G*	N**	G*	N**	G*	N**	G*	N**
Office:								
Banks and insurance	750	750	10,100	9,100	46,000	43,000	56,850	52,850
Other	---	---	----	----	212,500	195,500	212,500	195,500
Retail:								
Goods or services	7,850	5,900	---	---	---	---	7,850	5,900
Eating/drinking	---	---	---	---	---	---	---	---
Parking***	---	---	---	---	---	---	---	---
	8,600	6,650	10,100	9,100	258,500	238,500	277,200	254,250

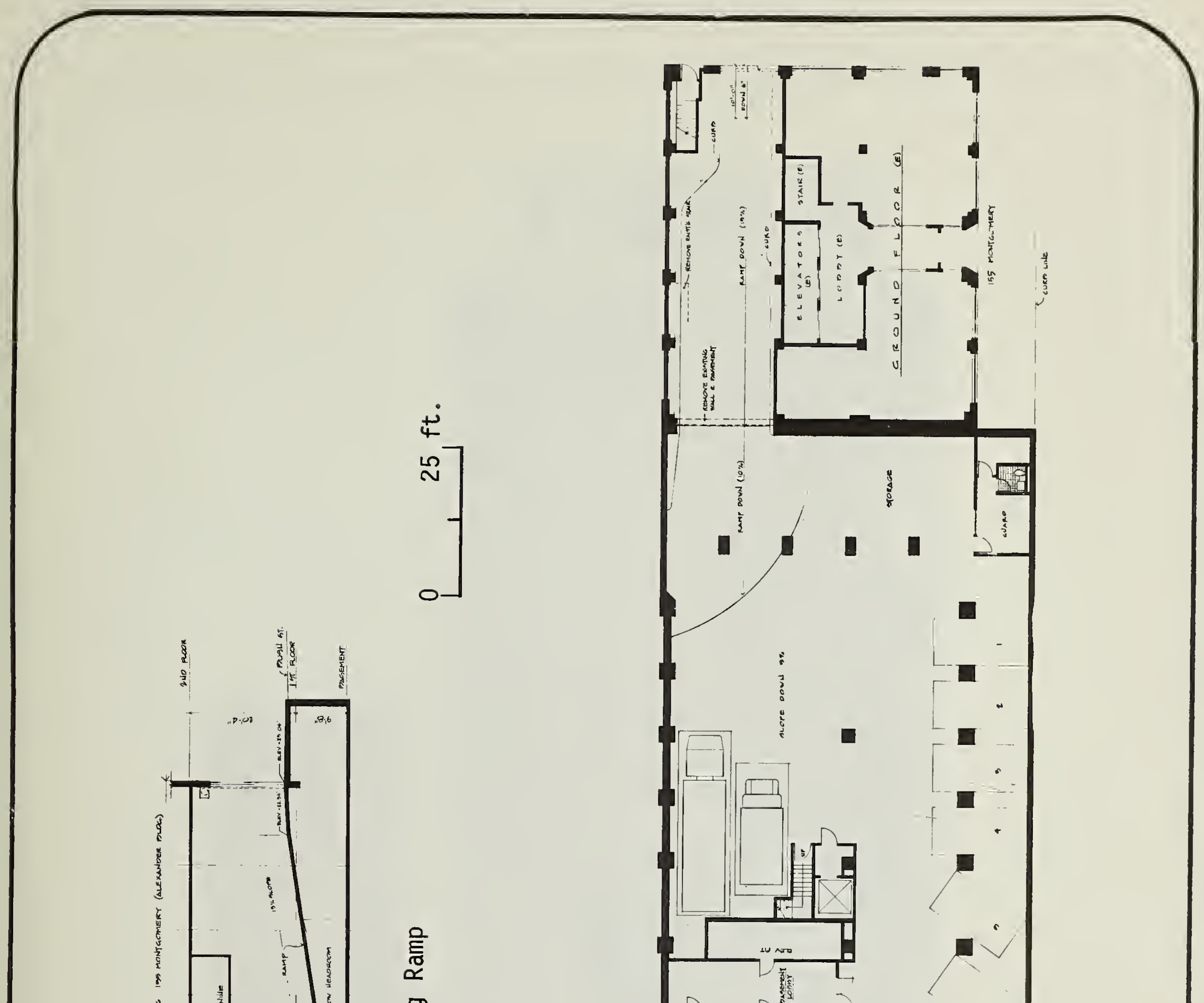
*Gross sq. ft.
**Net leasable sq. ft.
***Twelve to 15 parking spaces would be provided in basement.

SOURCE: Cahill Construction Company, Inc.



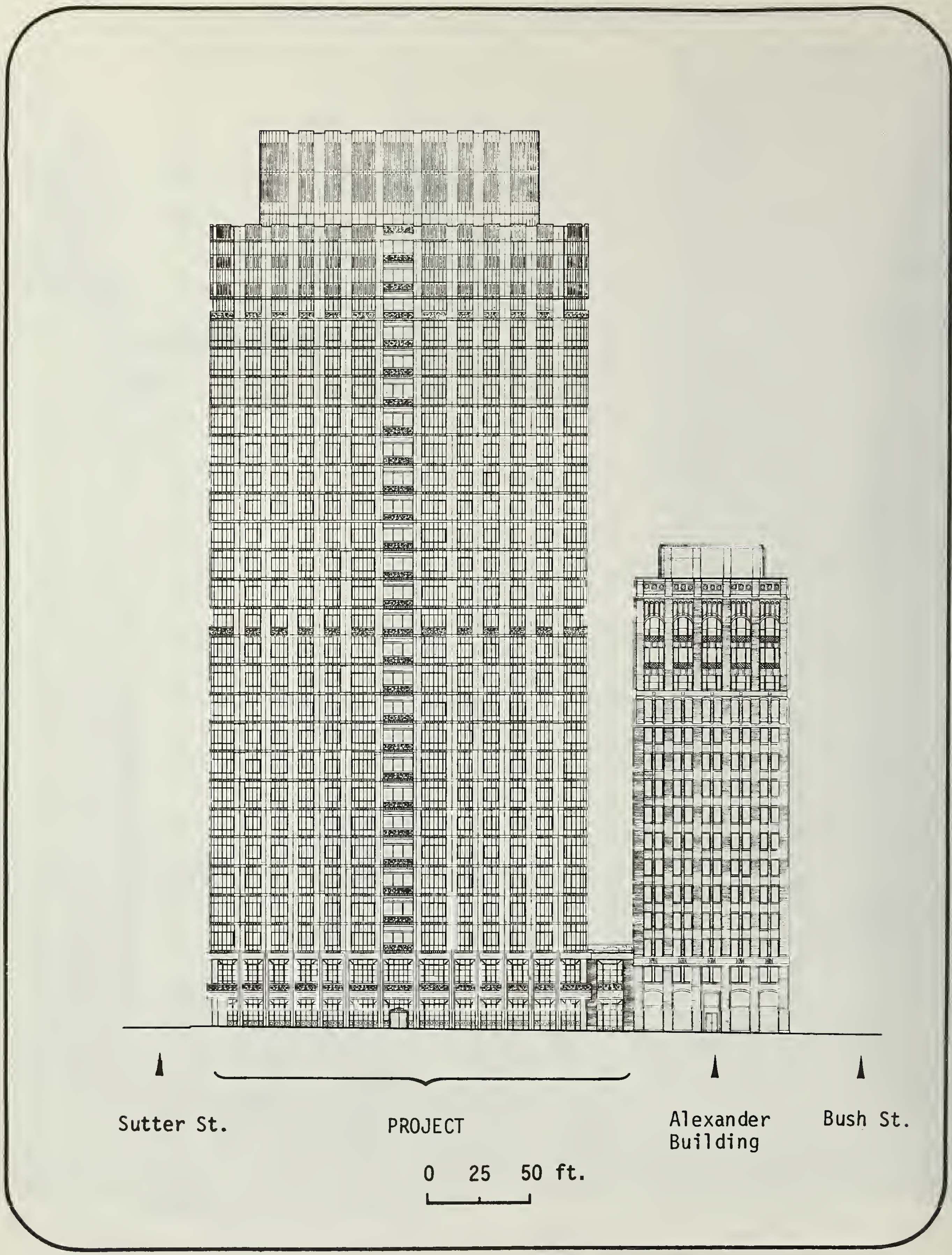
SOURCE: William Schuppel & Associates

FIGURE 3: VIEW OF PROJECT FROM SUTTER AND MONTGOMERY STREETS (REVISED)



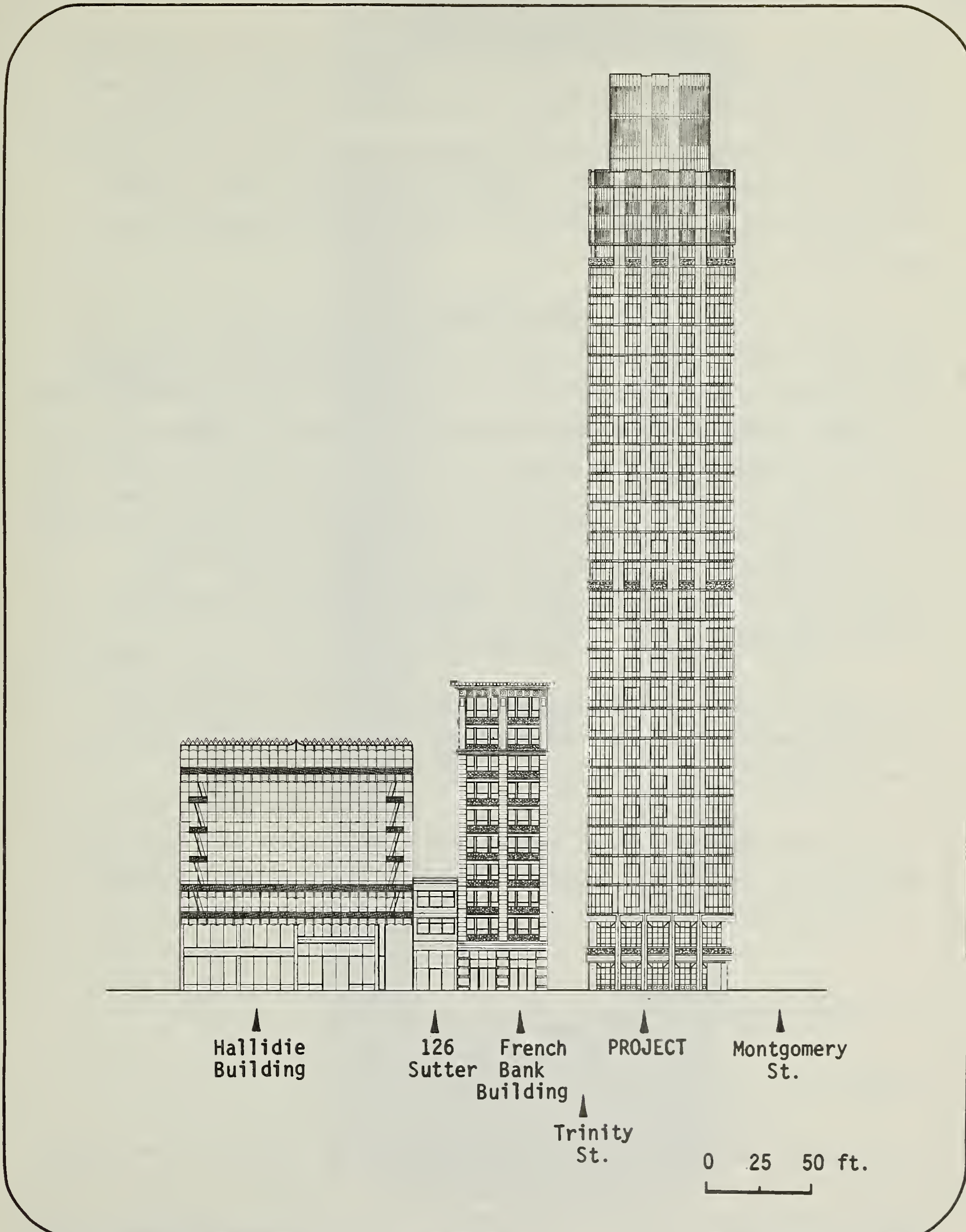
SOURCE: William Schuppel & Associates

FIGURE 4: BASEMENT PLAN



SOURCE: William Schuppel & Associates

FIGURE 5: MONTGOMERY STREET ELEVATION



SOURCE: William Schuppel & Associates

FIGURE 6: SUTTER STREET ELEVATION

The exterior column face of the project tower would be set back approximately 15 ft. from the Sutter St. property line to create a widened sidewalk area. The ground floor along both the Sutter St. and Montgomery St. frontages would be further set back from the exterior column face by about 10 ft. to create a pedestrian arcade (see Figure 7). Second floor, typical floor, and upper floor plans; and a building section are shown below (see Figures 8 and 9, pp. 18 and 19).

The exterior surfaces of the building would be pre-cast concrete and solar gray glass with iron railings at the 2nd, 15th and 26th floors. Pre-cast concrete panels, each approximately 12 ft. by 13 ft. in area, would be formed to produce segmental, bowed, bay projections which would be treated with sculptured ornamental cornice bands at each floor. The top two floors would be clad with the same pre-cast concrete but with a fluted skin treatment. The glass would be detailed to follow the segmental shape of the pre-cast concrete and would create a continuous vertical bay projection. Ground floor fenestration would be of clear glass with bronze colored aluminum rails, muntins and panels.

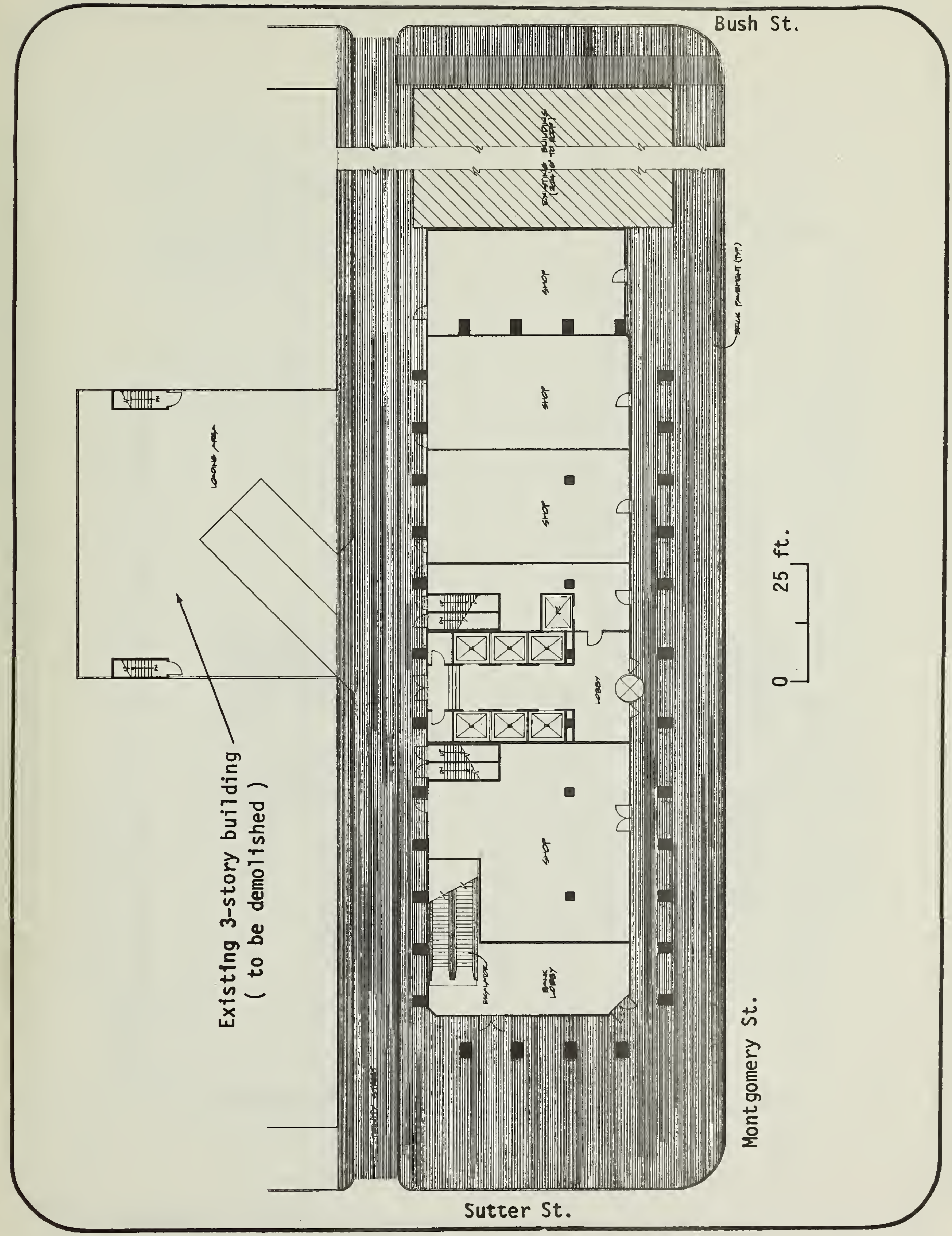
The sponsor proposes to install street trees and planters, and to pave adjacent pedestrian surfaces with brick./1/ No landscaping plan detailing these features is yet available.

The structure would consist of a steel frame with concrete slab floors on metal decks. The building foundation would consist of spread footings and would not require piledriving.

D. PROJECT SCHEDULE, COST AND APPROVAL REQUIREMENTS

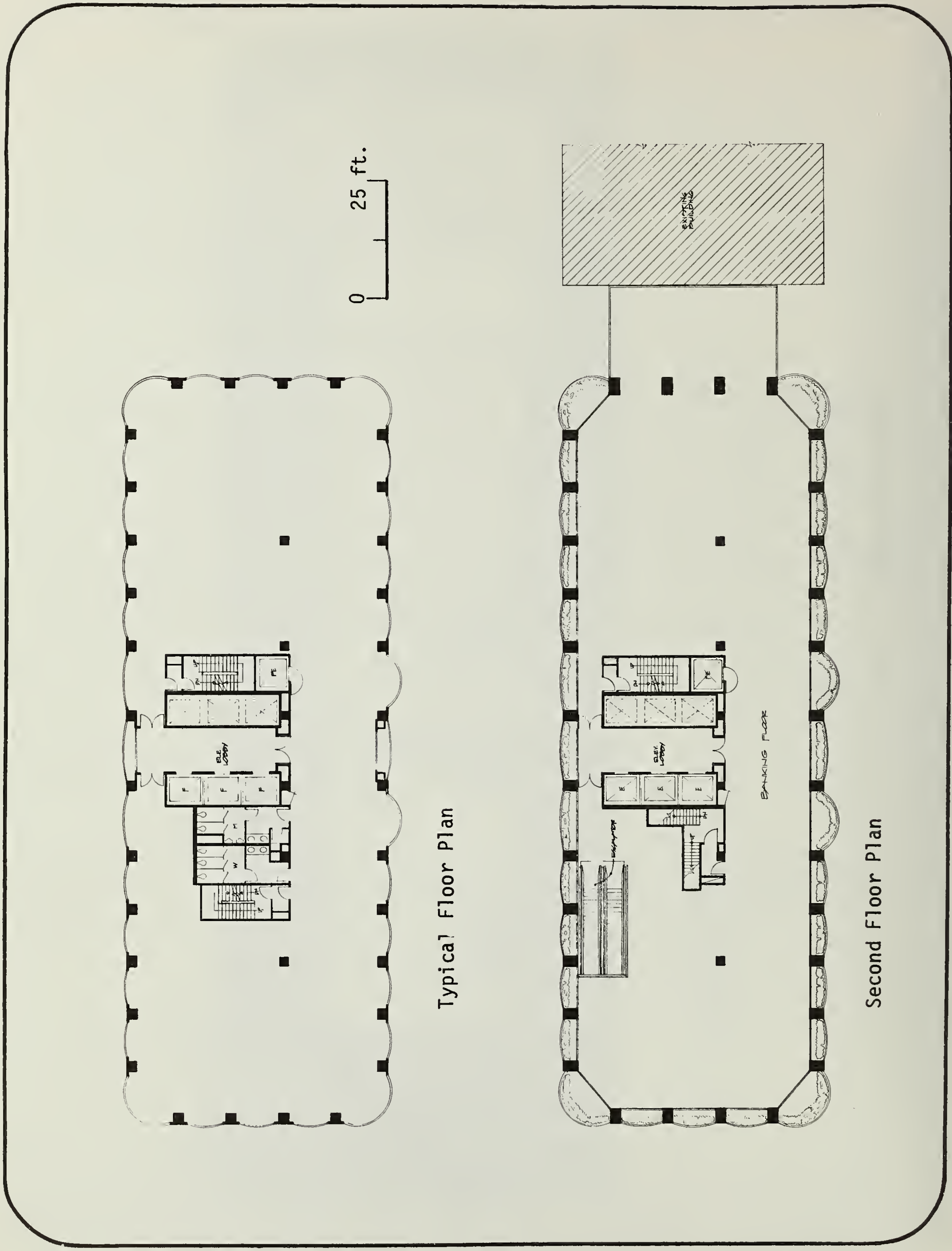
SCHEDULE/3/

Environmental review and detailed project design are scheduled by the project sponsor for completion in early 1981. Demolition and site clearance are then scheduled to require approximately four and one-half months; excavation one month; steel erection three and one-half months; exterior finishing three and



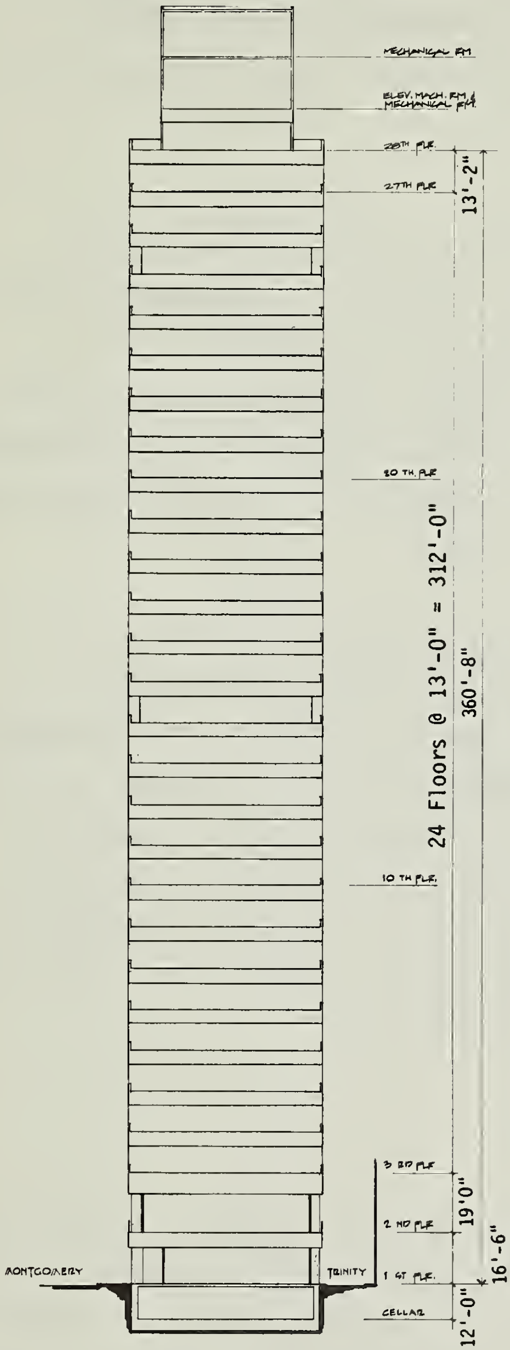
SOURCE: William Schuppel & Associates

FIGURE 7: GROUND FLOOR PLAN (REVISED)



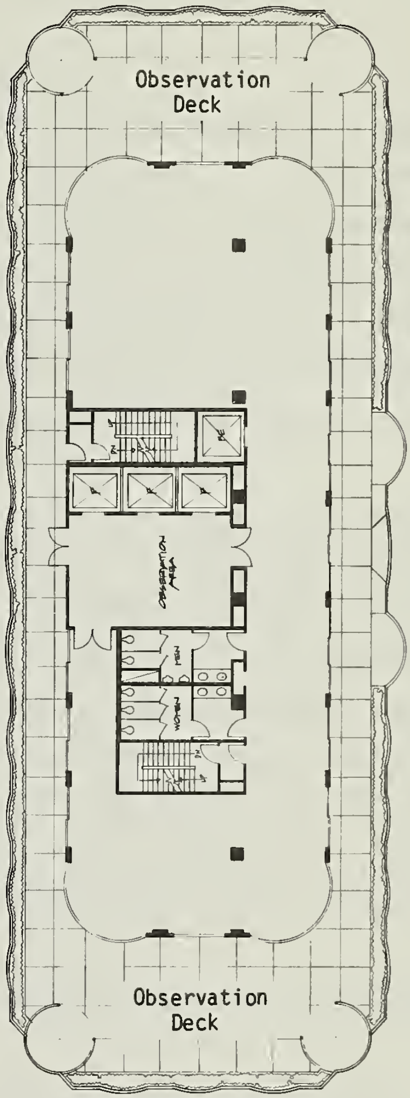
SOURCE: William Schuppel & Associates

FIGURE 8: SECOND FLOOR AND TYPICAL FLOOR PLANS



Section

0 50 ft.



28th Floor Plan

0 25 ft.

SOURCE: William Schuppel & Associates

FIGURE 9: BUILDING SECTION AND 28TH FLOOR PLAN (REVISED)

one-half months; and interior finishing four months. With allowance for contingencies, initial project occupancy is scheduled for mid-1982, full occupancy for mid- to late 1982.

COST/3/

Project construction costs would be approximately $18,900,000 assuming commencement of construction in July 1981, including $16,500,000 for basic structure and $2,400,000 for interior finishes, but excluding tenant improvements which would be paid for by tenants. Additional project costs would include approximately $800,000 for design, engineering and environmental documentation; $2,302,000 for land; and $1,650,000 for interim financing for a total project cost of approximately $23,652,000.

Ground floor space in the project would rent on a net-net basis for approximately $28 per square foot per year; floor space on the upper floors of the building would rent on a net-net basis for approximately $18 per square foot per year. The gross rent would be $28.00 per square foot per year for upper floors from which would be deducted a 5% vacancy factor, operating expenses, lease commission and tenant improvement amortization--leaving a net-net rent of $18.00. If the tenant improvement costs of $2,100,000 were added to the above project cost of $23,652,000, the construction cost per net rentable square foot would be $98.68 per square foot.

REQUIRED PERMITS AND ACTIONS

The first steps in processing the proposed project are public review of the draft environmental impact report (EIR), response to public comments on the DEIR, and certification of the EIR by the City Planning Commission. Under its current policy of Discretionary Review of downtown high-rise buildings during the interim moritorium on the use of bonuses/4/, the City Planning Commission would also review the building design and its environmental context in detail and adopt a resolution approving, approving with conditions, or disapproving the project. If approval is granted by the City Planning Commission, or by the Board of Permit Appeals on appeal, the project sponsor would be required to obtain a demolition permit from the Central Permit Bureau of the Department

of Public Works. Before beginning building construction, the project sponsor would also be required to obtain building, fire, electrical, and related permits from the Central Permit Bureau.

NOTES - Project Description

/1/ William Schuppel and Associates, project architects, Statement of Architect's Design Concept, March 18, 1980. A copy of this document is available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, San Francisco, and is hereby incorporated by reference into this EIR.

/2/ William J. Wright, Licensed Land Surveyor No. 2794, Site Survey, April 24, 1967.

/3/ R. Cahill, Cahill Construction Company, Inc., letter communication, February 24, 1981.

/4/ City Planning Commission Resolution No. 8474, January 17, 1980. Board of Supervisors Ordinance 240-80, June 1, 1980, established the interim limitations on use of bonuses; see page 30 for further discussion.

III. ENVIRONMENTAL SETTING

A. URBAN DESIGN FACTORS

CULTURAL RESOURCES

The project site is presently occupied by six structures, 25 Trinity St., the California Pacific Building at Montgomery and Sutter Sts., 109-123 Montgomery St., the Wilson Building at 125-129 Montgomery St., 133-137 Montgomery St., and the Steil Building at 141-145 Montgomery St. (see Figure 10). The latter four of these buildings constitute the last remaining small group of commercial structures on Montgomery St. between Market and California Sts. These four buildings are flanked at the Sutter St. and Bush St. ends of the block by two medium-sized skyscrapers, the California Pacific Building and the Alexander Building. The California Pacific Building also acts as the eastern end of the architecturally important grouping fronting on Sutter St. between Kearny and Montgomery Sts. (see Figure 11, p. 24). The history of the site is discussed, and the buildings on the project site described, in Appendix A, p. 281.

The general area surrounding the project block is dominated by tall, large, modern buildings. Directly opposite the project site on Montgomery St. are the Equitable Life Building (22 stories), at the northeast corner of Sutter and Montgomery Sts., and 180 Montgomery St. (22 stories), at the southeast corner of Bush and Montgomery Sts. A small modern structure at 130 Montgomery St. (6 stories) is situated between the two corner buildings. The Lick Garage on the south side of Sutter St. between Montgomery and Kearny Sts. was demolished in early 1980 to make way for the proposed Crocker National Bank Northern California headquarters (EE 78.298). All of the structures on the site and several in the vicinity were included in independent architectural surveys conducted by the San Francisco Department of City Planning and the Foundation for San Francisco's Architectural Heritage./2,3/ The survey ratings that were assigned to each building on and

SOURCE: Environmental Science Associates, Inc.

FIGURE 10: VIEW OF PROJECT SITE FROM MONTGOMERY AND BUSH STS.

Central Realty Bldg. | Hallidie Bldg. | 126 Sutter | French Bank Bldg. | California Pacific Bldg.

SOURCE: Environmental Science Associates, Inc.

FIGURE 11: VIEW OF SUTTER ST. FRONTAGE OF PROJECT BLOCK FROM MONTGOMERY AND SUTTER STS.

fronting the project site are shown in Figure 12; each survey and its rating system is discussed in Appendix B, p. 287.

No evidence is available to link the project site to any known archaeological resources or notable historical events. As the site was approximately 400-450 ft. inland from the original Yerba Buena Cove, the likelihood of its containing marine remnants is remote.

LAND USE

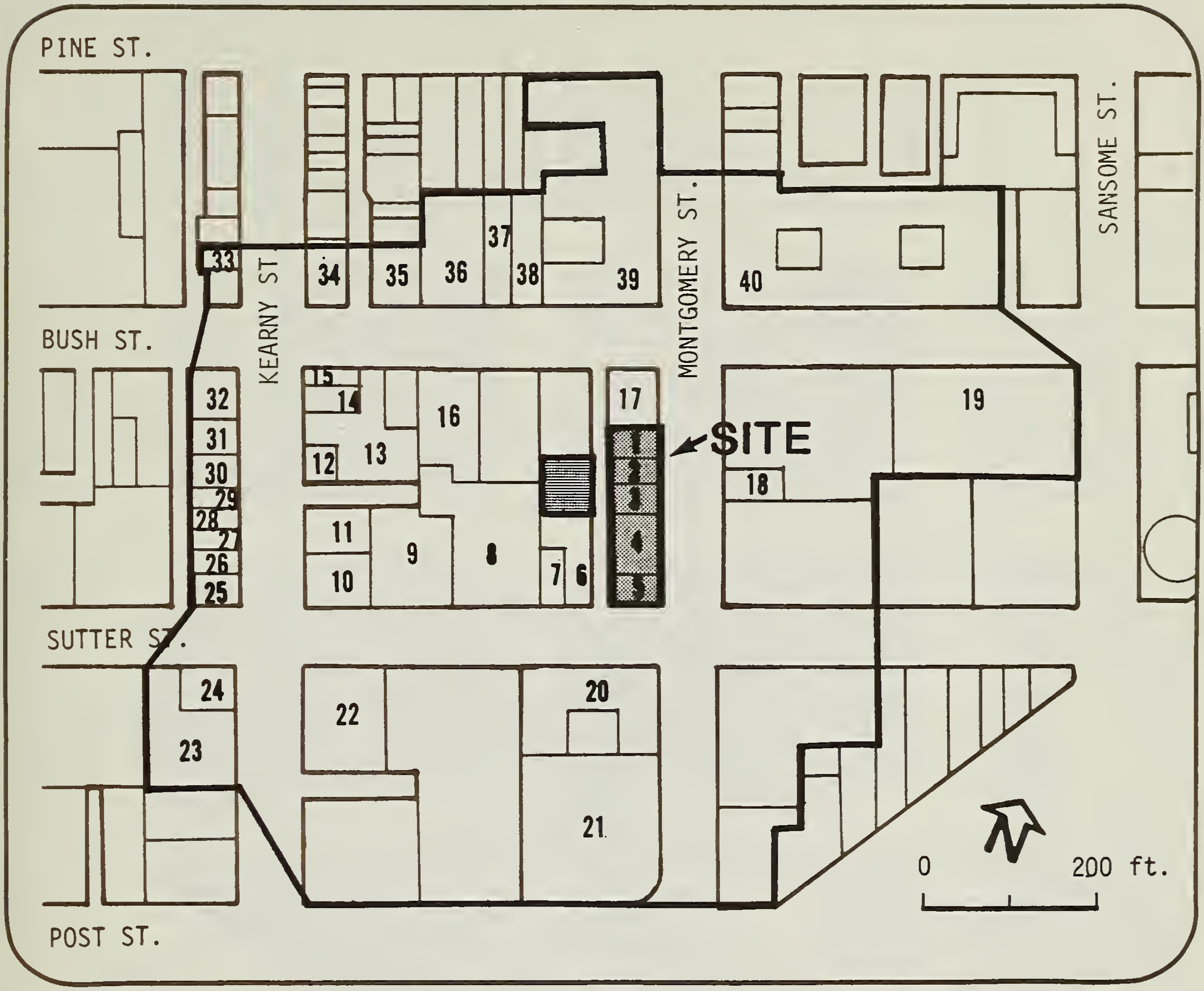
The building site is on Montgomery St., which until the last 20 years was considered to be the main focus of the Financial District. With the wave of new office construction in the Financial District during the 1960's and 1970's, however, the Financial District has expanded to include a roughly triangular area bounded by Kearny, Washington and Mission Sts.

The buildings on the project site are occupied primarily by office uses at their upper levels and retail uses at street level (see Section III.B., Employment, Housing and Fiscal Factors, p. 33, for a more detailed discussion of on-site land uses). General land uses on the site and in the vicinity are shown in Figure 13, p. 27. Retail tenants occupying the project site in January 1980 are identified in Appendix C, page 289.

Montgomery St. is lined with buildings generally ranging from 15 to 42 stories in height, which, in combination with the activities of the street, earned it the nickname of the "Wall Street of the West" during the 1930's, 1940's and 1950's. Among the taller buildings are lower and smaller buildings, most of which were built between 1906 and 1930. Existing building heights on the site and in the vicinity are shown in Figure 14, p. 28.

ZONING

The City Planning Code zoning classification for the site and surrounding area is C-3-O, Downtown Office District (see Figure 15, p. 29). Office and retail uses are permitted in this district with a basic Floor Area Ratio (FAR) of 14 to 1; that is, buildings may have a basic maximum total floor area that is 14 times the area of the site. Section 126 of the Code also contains bonus



LEGEND

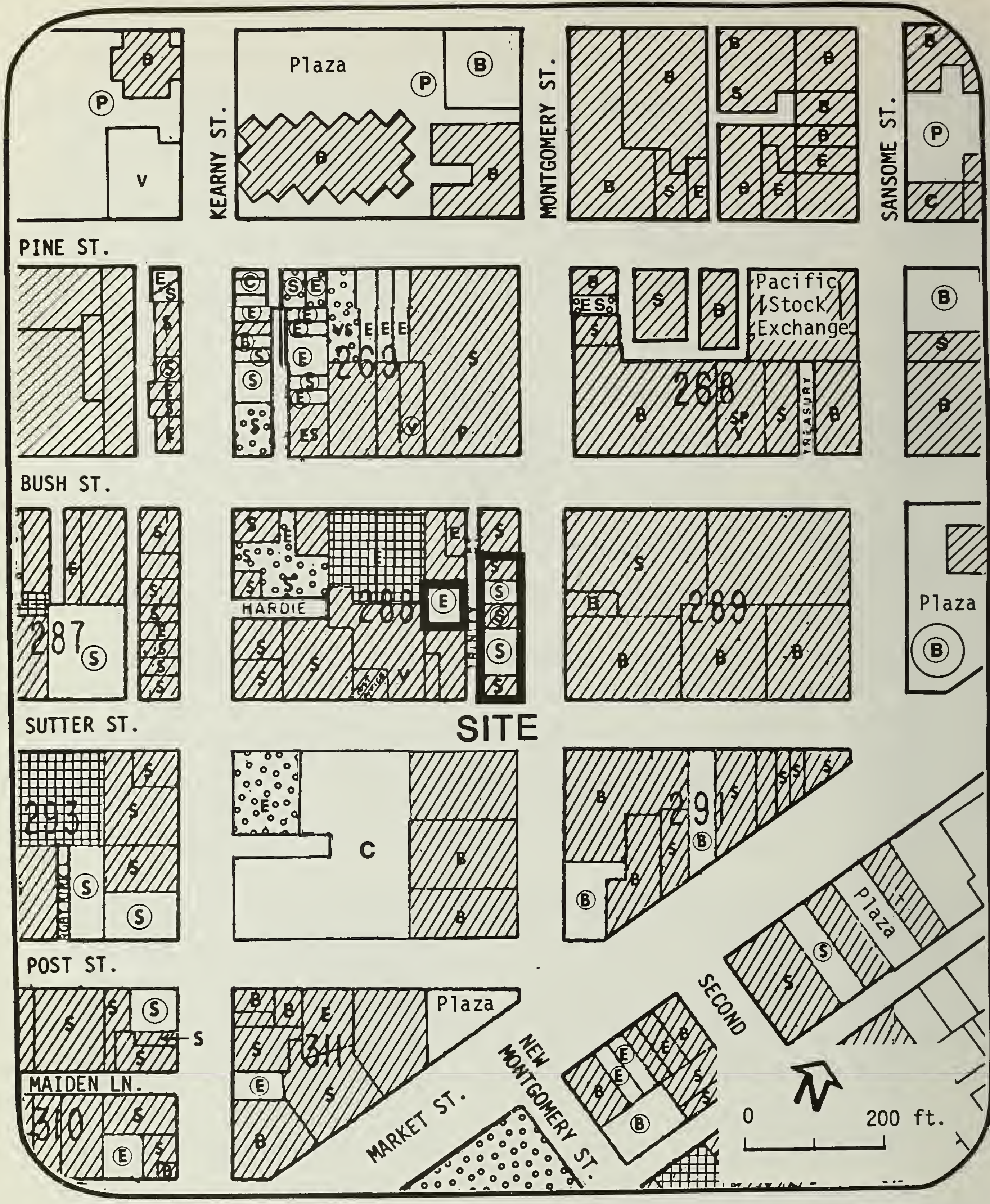
Building	S.F. DCP Inventory*	Heritage Survey*
Site:		
1 Steil Bldg., 141-145 Montgomery**	1-E2-1	B
2 133-137 Montgomery	0-A6-0	C
3 Wilson Bldg, 125-129 Montgomery	0-07-0	C
4 109-123 Montgomery	0-F1-0	C
5 California Pacific Bldg., 105 Mongomery**	1-07-2	B
Remainder of Site Block:		
6 French Bank Bldg., 108-110 Sutter**	3-07-4	A
7 126 Sutter	N.R.	C
8 Hallidie Bldg., 130-150 Sutter***	5-F8-5	A
9 Central Realty Bldg., 154 Sutter**	1-F1-2	B
10 200 Kearny**	3-F1-3	A
11 Robins Bldg., 220-226 Kearny	0-F1-0	C
12 Marston Bldg., 240-244 Kearny**	N.R.	B
13 Hotel Stanford, 246-250 Kearny	1-E2-2	C
14 260 Kearny	0-F1-0	C
15 Alto Bldg., 381-383 Bush**	1-F1-2	B
16 Financial Center Garage, 355 Bush	0-F1-0	B
17 Alexander Bldg., 149-157 Montgomery**	0-05-0	B
Fronting on Site Block:		
18 130 Montgomery**	2-F5-2	B
19 Standard Oil Co. Bldg., 225 Bush**	3-03-3	B
20 Hunter-Dulin Bldg., 111 Sutter**	4-D4-5	A
21 Crocker Bank Bldg., 1 Montgomery**	3-D4-4	A
22 Sutter Hotel, 171 Sutter	1-F1-2	C
23 Bartlett Doe (Dubbs) Bldg., 153 Kearny**	1-D7-1	B
24 Eyre (Argonaut) Bldg., 161 Kearny**	1-03-2	B
25 201 Kearny**	2-F1-2	B
26 209 Kearny	0-07-1	C
27 215-217 Kearny	0-07-1	C
28 219-225 Kearny	0-07-0	C
29 227-231 Kearny	0-07-0	C
30 237-241 Kearny	N.R.	C
31 McKay Bldg., 251-255 Kearny**	N.R.	C
32 Charleston Bldg., 251-155 Kearny**	0-F1-0	B
33 315 Kearny	N.R.	C
34 Shasta Hotel, 380 Bush	N.R.	C
35 Sam's Grill, 364 Bush	0-F1-0	C
36 S.F. Curb Exchange, 350 Bush**	3-01-3	A
37 344 Bush	1-D7-1	C
38 334 Bush	1-07-1	N.R.
39 Russ Bldg., 235 Montgomery**	4-D5-4	A
40 Mills Bldg. and Tower, 230 Montgomery***	4-D3-4	A

—— Study Area Boundary

NOTES
*See Appendix A for discussion of surveys and ratings.
**Buildings of Historic and/or Architectural Importance
***Listed in National Register of Historic Places (February 1979)
N.R. = Not Rated

SOURCE: Environmental Science Associates, Inc.

FIGURE 12: HISTORIC STRUCTURES ON AND FRONTING PROJECT BLOCK (REVISED)

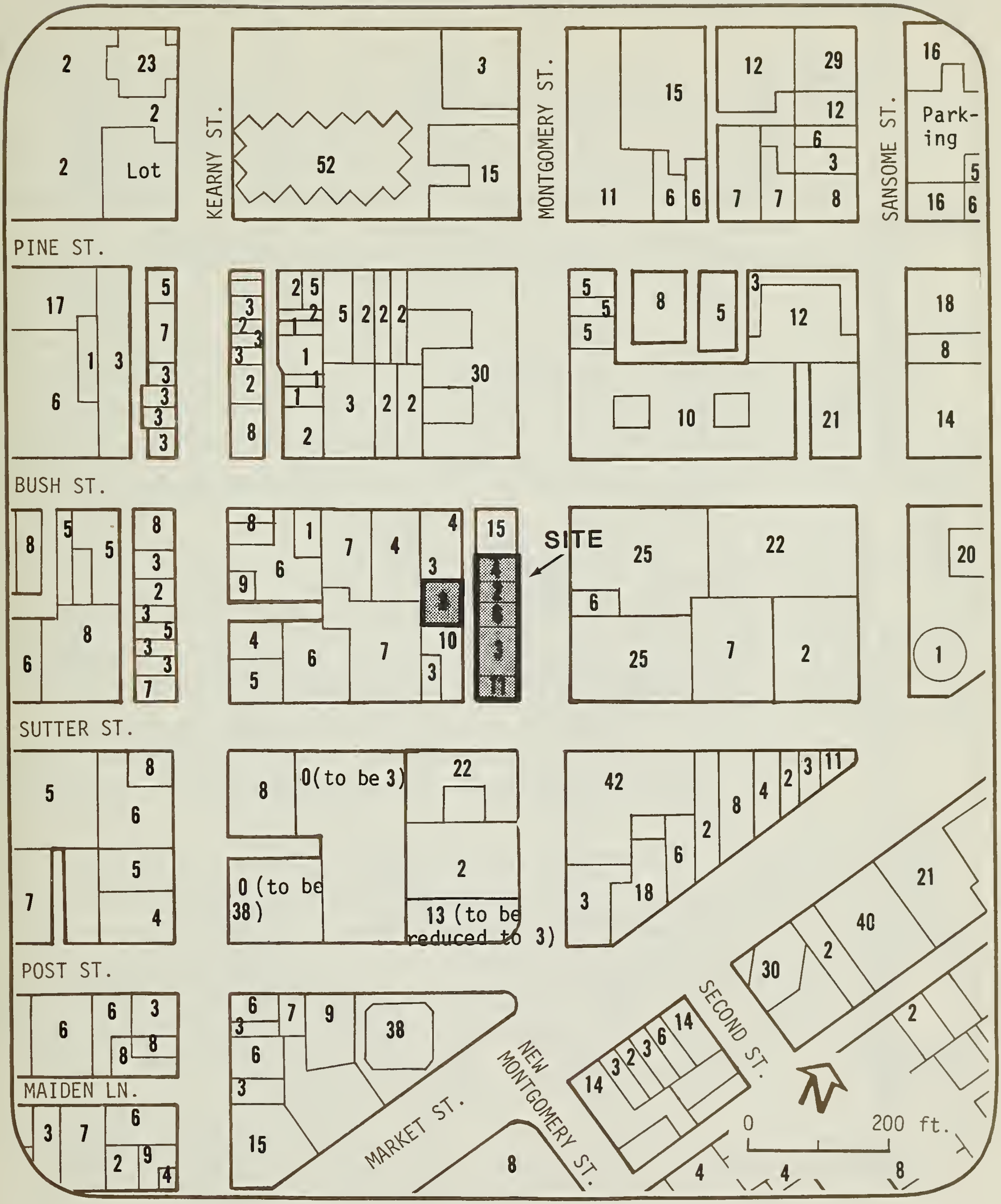


LEGEND

	Multi Use Buildings: Street Level(s)	Multi Use Buildings: Upper Levels	Single Use Buildings
Office			
Hotel			
Parking:			
Structure			
Lot			
Under building	P		(P)
Retail:			
Restaurant	E		(E)
Shops & Other	S		(S)
Branch Banks	B		(B)
Vacant	V	(V)	(V)
Under construction	C		(C)

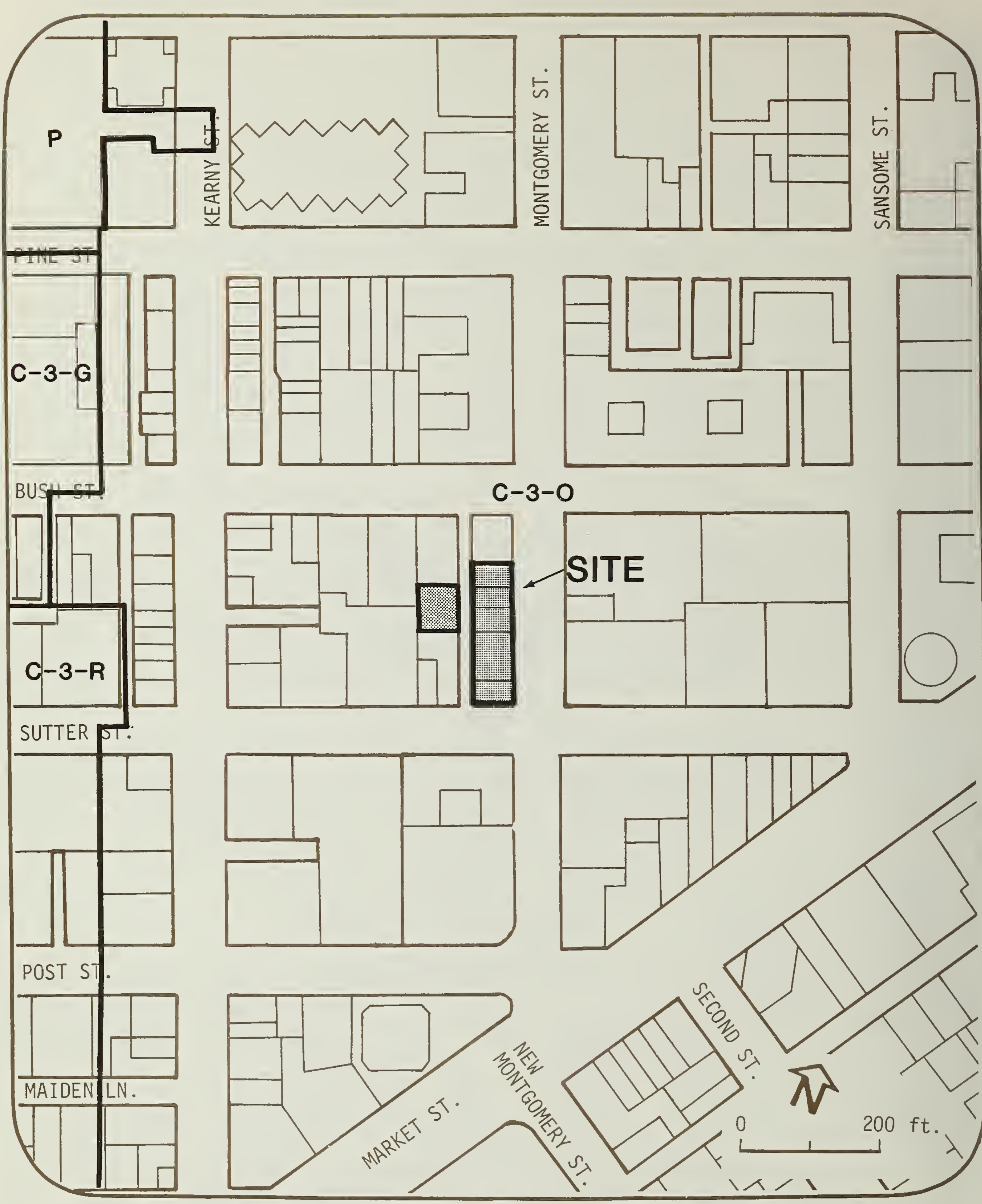
FIGURE 13: LAND USE IN VICINITY OF PROJECT SITE

SOURCE: Environmental Science Associates, Inc.



SOURCE: Environmental Science Associates, Inc.

FIGURE 14: BUILDING HEIGHTS (IN STORIES) IN VICINITY OF PROJECT SITE



LEGEND

C-3-O Downtown Office District
C-3-G Downtown General Commercial District
C-3-R Downtown Retail District
P Public Use District

FIGURE 15: PLANNING CODE USE DISTRICTS

SOURCE: San Francisco Planning Code

provisions which permit extra floor area in exchange for certain design features. The Board of Supervisors approved an interim amendment to this Code section limiting application of bonuses to hotels and housing uses (Ordinance 240-80, June 1, 1980) while a study is made of the effects of the bonus system. About 16 buildings were exempted from effects of the ordinance by specific action of the Board; the proposed project was included in this group of exemptions.

The site is in the 500-I Height and Bulk District (see Figure 16) in which the maximum permitted building height is 500 ft. Above a height of 150 ft., the maximum permitted building length is 170 ft. and the maximum permitted diagonal dimension is 200 ft.

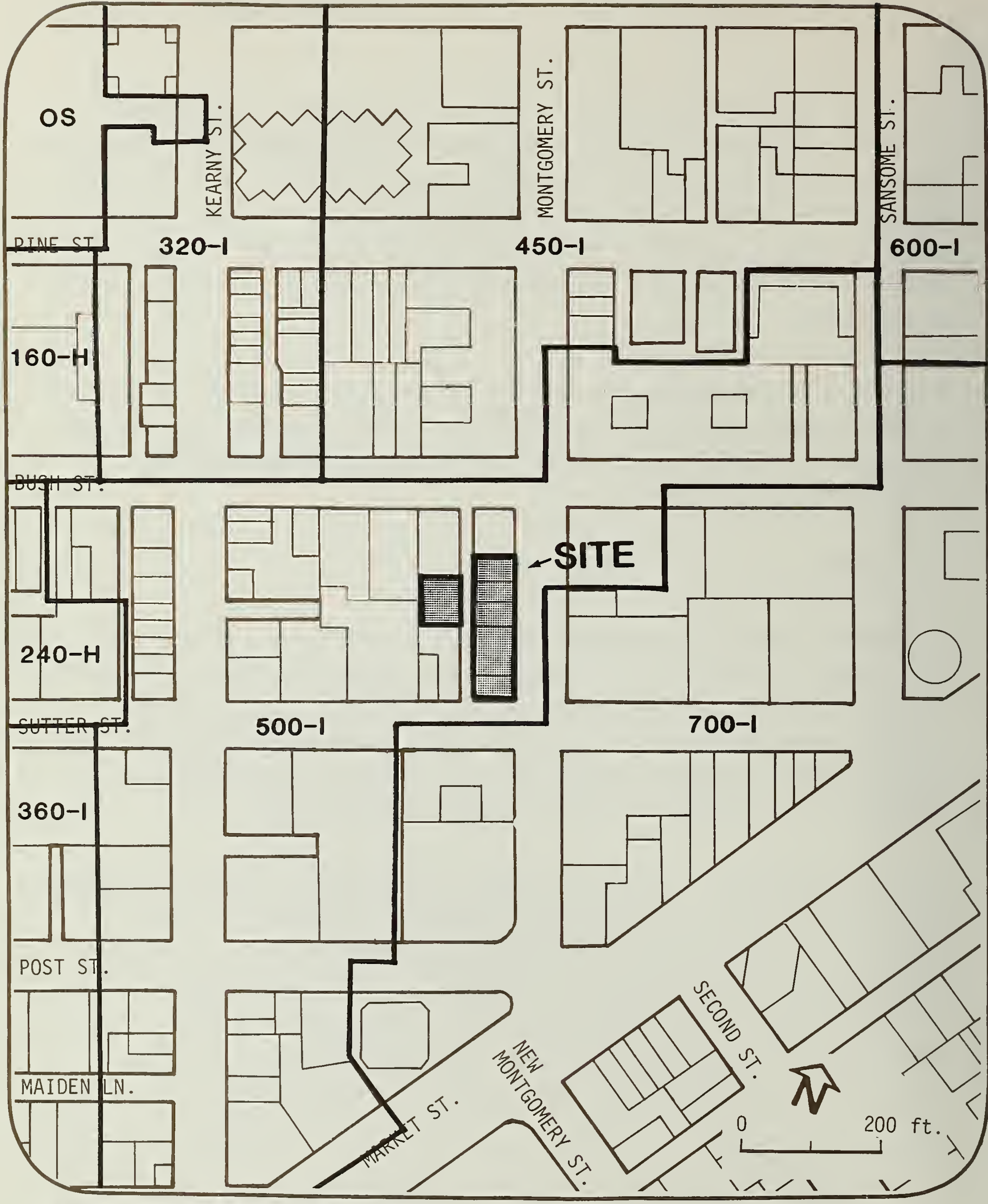
SITE VISIBILITY

Existing buildings on the project site range in height from two to 11 stories. Only the 11-story California Pacific Building at 105 Montgomery St. is generally visible beyond the buildings and street segments immediately adjoining the site. The tallest structure on the Montgomery St. frontage of the project block is the 15-story Alexander Building at the southwest corner of Montgomery and Bush Sts.

The California Pacific Building is visible from Market St. near New Montgomery and Sansome Sts.; and from portions of Sutter St., Montgomery St. and Grant Ave. From other neighboring street-level viewpoints, this building is generally not visible because of intervening structures, including 44 Montgomery St., 180 Montgomery St., and 111 Sutter St. The site is not generally visible from long-range viewpoints, such as Twin Peaks, Telegraph Hill, or Potrero Hill, due to intervening structures.

SUNLIGHT AND SHADOW

Light and shadow patterns on streets and sidewalks in the project area are cast by existing buildings on the project site and by nearby highrise structures. Existing shadow patterns at different times of day and year are shown in Figure 23, p. 70.



HEIGHT AND BULK DISTRICTS	HEIGHT LIMIT	HEIGHT ABOVE WHICH MAXIMUM DIMENSIONS APPLY	MAXIMUM BUILDING HEIGHT	MAXIMUM DIAGONAL DIMENSION
700-I	700	150'	170'	200'
600-I	600	150'	170'	200'
500-I	500	150'	170'	200'
450-I	450	150'	170'	200'
360-I	360	150'	170'	200'
320-I	320	150'	170'	200'
240-H	240	100'	170'	200'
160-H	160	100'	170'	200'
OS	Conformity with objectives, principles, & policies of the Master Plan.			

FIGURE 16: PLANNING CODE HEIGHT AND BULK DISTRICTS

SOURCE: San Francisco Planning Code

During early morning hours at all seasons of the year, Montgomery St., Bush St. and Sutter St. are shaded by existing structures, including the Hunter-Dulin Building (111 Sutter St.), the Wells Fargo Building (44 Montgomery St.) and 180 Montgomery St. From mid-morning to early afternoon, Montgomery St. is relatively free of shadows during spring, summer and fall months. During winter months, 111 Sutter St., 44 Montgomery St., and 120 Montgomery St. cast shadows on Montgomery and Sutter Sts. for most of the midday period.

During late afternoon in fall, winter and spring months, existing buildings shade most street areas surrounding the site. In summer months, the existing two- and three-story buildings on the site (109 through 133 Montgomery St.) would allow sunlight to reach the east side of Montgomery St. in late afternoon.

WIND/4/

Wind conditions in San Francisco are a determinant of pedestrian comfort on sidewalks and in other public areas. Northwesterly and westerly winds are the most frequent and strongest winds during all seasons in San Francisco. (In meteorology, a northwest wind blows from the northwest.)

In general, wind frequencies and speeds are highest in the summer when winds blow from the northwest 12% to 39% of the time, exceeding 13 miles per hour (mph) 35% of the time and 25 mph 3% of the time. During summer, winds blow from the west 15% to 40% of the time, exceeding 13 mph 29% of the time and 25 mph 7% of the time.

Wind tunnel tests of localized wind speeds and directions at the project site and vicinity were conducted under conditions of northwest and west winds. The study included tests of existing conditions, conditions with the proposed project, and conditions with alternative projects.

For northwest winds, existing wind speed ratios along Bush St. range from low to moderately high, with ratios increasing from west to east (See Section IV. A., Urban Design Factors, p. 71, for definitions of wind speed ratios). Wind

speed ratios along Montgomery St. adjacent the site are low to moderately low. Wind speed ratios along Sutter St. range from low to moderately high, with the highest values occurring along the south side of Sutter St. east of the project site.

For west winds, wind speed ratios also increase from west to east along Bush St. West of the site, wind speed ratios are low to moderate; east of the site they are moderate to moderately high. The highest ratio is at the northwest corner of the intersection of Bush and Montgomery Sts. Wind speed ratios along Montgomery St. are moderate. Along Sutter St., wind speed ratios range from low to moderately low west of the site to high east of the site.

NOTES - Urban Design Factors

/1/ This section is based upon a study prepared by Charles Hall Page and Associates, Inc., entitled "101 Montgomery Street Building Report," March 1980. A copy of this document is available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, San Francisco, and is hereby incorporated by reference into this EIR.

/2/ San Francisco Department of City Planning, Map entitled <u>1976 Architectural Inventory</u>, 1976.

/3/ Charles Hall Page and Associates, Inc., for the Foundation for San Francisco Architectural Heritage, <u>Splendid Survivors - San Francisco Downtown Architectural Heritage</u>, 1979.

/4/ This section is based upon a study prepared by Environmental Impact Planning Corporation, Inc., entitled "Microclimate Impact Study for the proposed 101 Montgomery Street Building," May 1980. A copy of this document is available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, San Francisco, and is hereby incorporated by reference into this EIR.

B. <u>EMPLOYMENT, HOUSING AND FISCAL FACTORS</u>/1/

ON-SITE COMMERCIAL FLOOR AREA/2/

The project site contains six buildings with a total of about 50,000 sq. ft. of net leasable space. About 28,000 sq. ft. were occupied in early 1980 by 45

office tenants. Four eating and drinking establishments occupied 10,500 sq. ft. and 11 other retail tenants occupied 9,500 sq. ft. An additional 2,000 sq. ft. of office space were vacant or used for storage./3/ The buildings are now in the process of being vacated pursuant to eviction notices issued by the project sponsor.

Rents for the office space ranged from about $4 to $7 per sq. ft. per year, with the average being about $6. The average rent for retail space was about $21 per sq. ft. per year.

EMPLOYMENT AND TENANT MIX/2/

Approximately 175 people were employed in the 60 businesses that occupied the site. About 30 were employed at the four eating and drinking establishments and 30 were employed at the other retail establishments. One tenant employed 10 people, but all other tenants had fewer than 10 employees. The 45 office tenants employed a total of about 110 persons, for an average of approximately 2.5 employees per office. Total employment at the site also included approximately two full-time janitorial positions.

LOCAL AND REGIONAL COMMERCIAL SPACE/4/

Downtown San Francisco is the office center of the Bay Area. There are approximately 59 million gross sq. ft. of office space in San Francisco./5/ Space in major buildings downtown has been added at a rate of 1.6 million sq. ft. a year during the 1970's (see Table 2). Between 1945 and 1979, 60 downtown highrises (at least 7 stories or 118 feet high) were constructed. Total space in these buildings is approximately 28.9 million sq. ft.

An additional 10-12 million sq. ft. of office space would be added if the highrise buildings under construction or proposed (other than the project) were all eventually built.

Office employment has accounted for about 60% of Bay Area and San Francisco employment growth since 1970. A total of 1.1 million people held office jobs in the Bay Area in 1978. About two-thirds were employed by companies serving

TABLE 2: MAJOR OFFICE BUILDING CONSTRUCTION IN SAN FRANCISCO AS OF MARCH 1, 1981/1/

Year	Total Gross Sq. Ft. Completed	Five-Year Total	Five-Year Annual Average	Cumulative Total
Pre-1960	16,050,000			16,050,000
1960	836,000			
1961	270,000			
1962	---			
1963	1,219,000			
1964	---			
1960-1964		2,325,000	465,000	18,375,000
1965	1,529,000			
1966	1,027,000			
1967	2,046,000			
1968	186,000			
1969	3,173,000			
1965-1969		7,961,000	1,592,000	26,336,000
1970	1,853,000			
1971	---			
1972	1,858,000			
1973	2,633,000			
1974	2,548,000			
1970-1974		8,892,000	1,778,000	35,228,000
1975	---			
1976	1,646,000			
1977	3,551,000			
1978	---			
1979	2,220,000			
1975-1979		7,417,000	1,483,000	42,645,000
1980	523,000			43,168,000
Additional Projects Under Construction	6,700,000			49,868,000
Additional Projects Approved, Not Under Construction	3,700,000			53,568,000
Additional Projects Under Review or Proposed	5,900,000 (Estimate)			59,468,000

/1/ Includes only buildings ten stories or greater in height.

SOURCE: L. Blazej, Department of City Planning, based on department records; and Table R-1 in "Summary of Comments and Responses" to Five Fremont Center DEIR, March 5, 1981.

the local population. In contrast, over half (55%) of San Francisco's 280,000 office workers were employed in offices such as national or regional headquarters, which serve a wider geographical area. Most other office space occupied by firms not directly serving the local population was in Santa Clara and Alameda Counties./6/ Eleven of Fortune Magazine's Top 1,000 industrials and 10 of its top 300 non-industrials were headquartered in San Francisco in 1978./7/

The vacancy rate in downtown office buildings was 2.6% in October 1979./8/ Rents in premium office space in early 1980 ranged from about $18 to $24 per sq. ft. per year. Space on the upper floors of new, top-quality buildings that will go on the market in 1981 are expected to command rents of up to $30 per sq. ft. per year. Consistently low vacancy rates and rapidly rising rents suggest that construction of new office space in San Francisco has failed to keep pace with demand.

If office employment continues to account for the same percentage of San Francisco employment growth as it has in the past, Association of Bay Area Governments (ABAG) projections suggest that a net increase of about 1.25 million sq. ft. of office space will be needed each year between 1980 and 1985 to accommodate that growth./9/ Demand for office space, however, could be even greater. The ABAG number indicates that 1.25 million additional sq. ft. of office space will be occupied each year. This could either be because no more than that will be demanded or because no more will be supplied. If occupancy is limited by supply, then more than 1.25 million sq. ft. of new space would be occupied each year if more than that amount were built. Vacancy rates and the rate of rent increases suggest that there is a backlog of demand. One commercial real estate broker foresees a cumulative shortage of four million sq. ft. by 1983, even assuming that six million sq. ft. of new space becomes available between 1980 and 1983./10/

The apparent shortage of office space in San Francisco has meant that some potential users of San Francisco office space are instead located elsewhere. Cheaper space in outlying areas attracts companies that do not need a San Francisco location or can shift their clerical functions out of the City. Approximately four million sq. ft. of new ofice space will be built in the

next five years in major projects in San Mateo County and in the San Francisco Executive Park near Candlestick Park. This space is expected to be quickly rented. Rents for new office space in these areas average about $13 per sq. ft.

Alameda and Contra Costa Counties have nearly 13 million sq. ft. of office space, two-thirds of which is in Oakland and Walnut Creek. Those two communities are absorbing about 600,000 sq. ft. of office space annually, at rents $2-$6 per sq. ft. less than those in San Francisco.

Small shop retail space in downtown office buildings rents for about $24 to $36 per sq. ft. Vacant retail space in the Financial District is even less common than vacant office space. Completion of the Crocker project (EE 78.298) immediately south of the project site might ease the local shortage of retail space. Eighty-six thousand sq. ft. of leasable retail space are planned for that project.

HOUSING

Regional Housing/11/

There were just over 2.0 million housing units in the nine-county Bay Region in early 1980. Single-family dwellings are the prevalent type of housing unit and owner-occupancy the prevalent form of tenancy. About one-third of the units are in the East Bay (Alameda and Contra Costa Counties), about one-third on the Peninsula (San Mateo and Santa Clara Counties), about 16% in San Francisco, 10% in the North Bay (Marin and Sonoma Counties), and 6% in Solano and Napa Counties.

From 1976 to 1979, the region's housing stock increased by about 150,000 units, an average annual growth rate of almost 2%. The most active housing market areas in terms of the number of units proposed are the established suburban communities just outside the region's central core (central Solano County, San Jose/Milpitas, Vallejo/Benecia, central Contra Costa County, and south Alameda County). The fastest growing housing market areas in terms of rate of growth (building permits issued per year) are those that contain the

smaller, rapidly developing communities in the fringe areas of the region (south Santa Clara County, San Mateo County coast, east Contra Costa County, and central and east Solano County). The slowest-growing housing market area in terms of rate of growth are the older central cities and suburbs (San Francisco, north Alameda County, and south Marin County).

In recent years, housing costs have increased rapidly throughout the Bay Area. From 1975 to 1979, the average cost of a home more than doubled, reflecting an average yearly increase of 19%./12/ Rates of increase were highest in San Francisco, lowest in the East Bay, and similar to the regional average in the Peninsula and the North Bay.

San Francisco Housing/13/

San Francisco has about 320,000 housing units in 1980. Approximately one-third of these units are single-family structures, one-third are in structures of two to nine units, and one-third are in structures with 10 or more units. About two-thirds of the stock is rented and one-third is owner occupied (including about 3,700 condominiums representing about 1% of the total stock).

Residential construction activity in the late 1970's was light compared with that in the surrounding metropolitan area. Building permits averaged about 1,700 per year and the annual net addition of housing averaged about 1,100 units per year after demolitions. Most new housing construction in San Francisco, other than subsidized housing, is expected to be single-family detached or condominiums.

Housing costs in San Francisco increased by 116% from April 1975 to April 1979, averaging 21.2% per year./14/ Few housing units are for sale in San Francisco for less than $100,000 and few rental units are available for under $200-$250 per month. The vacancy rate is low, estimated at less than 3%.

Strong housing demand coupled with a shortage of buildable sites have contributed to the tremendous increases in the cost of housing. Continuing strong demand for San Francisco housing reflects population and demographic

trends, changing lifestyles, increasing returns from housing as a real estate investment, strong employment growth, "no-growth" policies of some suburbs, and concern for energy conservation.

FISCAL FACTORS

Revenues

The site consists of six parcels in Assessor's Block 288. The assessed value of these properties in fiscal year 1980-81 is $897,501. At the 1980-81 property tax rate of $4.92, the property yielded about $44,200 in property tax revenues. The revenues were distributed as shown in Table 3.

TABLE 3: PROPERTY TAX REVENUES FROM PROJECT SITE IN 1980-81

Agency	Revenues from the $4.00 Tax Rate	Revenues to Retire Bonded Indebtedness
City and County of San Francisco (General Fund)	$31,400	$5,100
Open Space	900	--
County Superintendent of Schools	*	--
San Francisco Unified School District	2,800	300
San Francisco Community College District	500	--
Bay Area Air Quality Management District	100	--
BART	200	2,900
TOTAL	$35,900	$8,300

* Less than $50

SOURCE: San Francisco Controller's Office

Average annual earnings of employees at the site in early 1981 are estimated to have been $25,600./15/ The payroll tax is paid on the earnings of about 115 employees./16/ At a rate of 1.1% of total earnings, payroll tax revenues total about $32,400.

The average office worker in downtown San Francisco is estimated to make taxable expenditures of $1,120 annually in the central business district./17/ Sales tax revenues allocated to the City and County of San Francisco are 1% of taxable sales. Sales tax revenues generated by employees at the project site are therefore about $2,000 a year.

Sales tax revenues generated by the 1/2% BART sales tax are about $1,000 per year. Of that amount, BART receives $750 directly, and the remaining $250 is distributed by the Metropolitan Transportation Commission among BART, Muni, and AC Transit.

The utility users' tax, which is paid on water, gas, electricity, and telephone bills, generates about $7,100 from the existing buildings on the project site./18/

The project sponsors also pay a gross receipts tax on their rental income from the existing buildings on the site. Total annual rental income is about $513,000. At a tax rate of 0.22%, gross receipts tax revenues from the existing buildings are about $1,100./19/

Total revenues to the City's General Fund from the non-BART sales tax, payroll tax, utility users' tax, gross receipts tax, and non-bond property tax for the City and County of San Francisco will total about $44,000 from the site in 1980-81.

Costs

The City incurs costs in servicing the existing buildings. Police, fire, and general government expenditures are supported primarily by the General Fund. Most street maintenance, street improvement, and traffic control costs are supported by other revenue sources such as fines, and federal and state aid./20/ Deriving dollar estimates of these costs is extremely difficult, as there is a lack of adequate data and no accepted methodology for apportioning costs.

The General Fund provides a subsidy to the Municipal Railway. At 1980-81 revenue and cost estimates, and under the assumption that with the new fare schedule each daily commuter will buy a Fast Pass, the per ride General Fund subsidy to the Muni's operating budget is $0.29./21/ It is estimated that approximately 26% of the employees who occupied the existing buildings rode Muni to and from work (see Table 4). The General Fund subsidy to Muni required by commuting of on-site employees was therefore about $6,200 per year./22/

Four factors are left out of this analysis: (1) the number of workers riding Muni includes only those who use Muni as their primary mode of transportaton, but excludes those, for example, who ride BART into the City and then transfer to Muni; (2) capital costs have not been considered; (3) the cost of providing service downtown at rush hour may be different from the average cost of providing service; and (4) the costs of non-work related trips (employee day trips, business visitor trips, and retail customer trips) are not included.

TABLE 4: DOWNTOWN OFFICE WORKERS BY AREA OF RESIDENCE AND TRANSPORTATION MODE

Area of Residence	As a Percent of All Workers*	Percent of Workers from that Area Who Ride: Muni**	BART**
San Francisco	40	63	6
Downtown/Northeast	7	61	1
Northwest	15	69	0
Southwest	13	62	9
Southeast	5	52	22
Peninsula	18	3	19
East Bay	30	0	37
North Bay	12	0	0
TOTAL	100	26	17

SOURCES: *Recht, Hausrath and Associates estimate based on surveys of workers at four downtown office buildings (See Appendix C, p. 289).
**TJKM, Transportation Consultants

The impacts of these factors, and the difficulties involved in integrating them into the analysis, are discussed at greater length in Section IV.B., and Appendix C, p. 289.

The buildings also help to pay for the Muni deficit through their contributions to the General Fund. In the 1980-81 budget, 7% of discretionary General Fund revenues were allocated to Muni. Seven percent of the $74,000 in General Fund revenues generated by the existing buildings is $5,200. However, as there is no way to determine how General Fund expenditures would change if the buildings did not exist, it may not be

appropriate to compare directly the $6,200 General Fund costs to the $5,200 in General Fund revenues.

BART

BART fares cover about 43% of BART costs. For each BART passenger trip an average of $1.00 is contributed in fares, and an additional $1.33 in costs must be supported by some other revenue source. Most of this additional cost is supported by the special BART 1/2% sales tax./23/

It is estimated that about 17% of employees who occupied the existing buildings rode BART to work (see Table 4). The estimated annual costs to BART that were not covered by these riders' fares are $18,500./24/ BART's revenues from the sales tax generated by employees in the buildings was about $800 per year, and BART's share of property tax revenues from the buildings is about $200. BART's net deficit as a result of the activities at the site in early 1980 would therefore be $17,500, had the buildings remained fully occupied.

NOTES - Employment, Housing and Fiscal Factors

/1/ This section is based on an untitled report prepared by Recht, Hausrath and Associates, May 1980. The report is available for public review at the Office of Environmental Review, 45 Hyde St., San Francisco, and is hereby incorporated by reference into this EIR.

/2/ R. W. Cahill, Director, Cahill Construction Company, memorandum, January 11, 1980. The memorandum contains a list of site tenants. It is available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde St., San Francisco, and is hereby incorporated by reference into this EIR.

/3/ See Appendix C, p. 326, for a list of street-level retail tenants as of May 1980.

/4/ Unless otherwise referenced, information for this section is based on the following sources: Bill Cumbelich, Office Building Specialist, Coldwell Banker Commercial Brokerage Company, telephone communication, February 28, 1980; sources cited for Table 1; "Into the 80's," transcript of remarks delivered by Coldwell Banker executives, January 16, 1980. A copy of the latter document is available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde St., Room 318.

/5/ San Francisco Planning and Urban Renewal Association (SPUR). Impact of Intensive High-Rise Development on San Francisco (hereinafter referred to as SPUR Report), p. 32, reported that 50 million sq. ft. of office space existed in San Francisco on January 1, 1974. Approximately nine million sq. ft. have been added since then in large office buildings downtown.

/6/ Association of Bay Area Governments and Bay Area Council, San Francisco Bay Area Economic Profile, December 1979, pp. 37-48.

/7/ Association of Bay Area Governments and Bay Area Council, San Francisco Bay Area Economic Profile, A Summary Report, October 1979, p. 8.

/8/ Survey of Building Owners and Managers Association. Mrs. K. Casey, Office Manager, BOMA, telephone communication, April 7, 1980.

/9/ ABAG and California EDD data indicates that about 60% of the growth in San Francisco employment between 1972 and 1978 was employment in offices. ABAG projects that employment in San Francisco will increase 41,400 between 1980 and 1985, or an average of 8,300 per year. Sixty percent of that, or 5,000 jobs, are expected to be in offices. Assuming 250 sq. ft. of office space per employee, office employment growth would require an additional 1.25 million sq. ft. of office space each year. (Association of Bay Area Governments and Bay Area Council, San Francisco Bay Area Economic Profile, December 1979, pp. 40, 43; California Employment Development Department, Wage and Salary Employment, By Industry, San Francisco City and County, 1972-1978.

/10/ "Into the 80's," transcript of remarks delivered by Coldwell Banker executives, January 16, 1980. See Note 4, above.

/11/ Unless otherwise referenced, information describing reginal housing stock and housing growth is based upon the following sources: San Francisco Bay Area Housing Profile 1970-75, Association of Bay Area Governments, November 1977; San Francisco Bay Area Housing Activity Report, Association of Bay Area Governments, March 1979; and California Construction Trends, Security Pacific Bank, 1978 and Months 1-11, 1979.

/12/ Northern California Real Estate Report, Real Estate Research Council of Northern California. Cost indices were compared for April of each year.

/13/ Unless otherwise referenced, information describing San Francisco's housing stock and growth is based upon the following sources: Residence: Changes in the San Francisco Housing Inventory, 1978, Department of City Planning, September 1979; and Condominium Conversions in San Francisco, Department of City Planning and the Real Estate Industry, November 1978.

/14/ See Note 11, above.

/15/ Average annual earnings of downtown office workers in 1974 were $16,335 (SPUR Report, p. 248). Between the time of that survey and the end of 1980, average earnings of employees in the finance, insurance, and real estate industries rose 57% (U.S. Bureau of Labor Statistics, Monthly Labor Review, January 1981).

/16/ Because the payroll tax is only paid by firms with a tax liability in excess of $500, it is estimated that firms with fewer than two employees will pay no tax, those with more than two employees will pay tax, and half of those with two employees will pay tax. (Tax Liability for the average two-employee firm is near the $500 threshold: 2 x $25,600 x .011 = $563.) In half of the firms, one person is assumed to be an owner who is exempt. (These calculations and all other payroll and gross receipts tax calculations in this EIR assume the February 27, 1981 Court of Appeals decision prohibiting San Francisco from raising businsss taxes is upheld by the California Supreme Court. If it is not, tax revenues would be higher than estimated in this EIR.)

/17/ Taxable expenditures within the central business district per office worker were $715 per year (SPUR Report, p. 262). Between 1974 and 1980-81 average weekly earnings of finance, insurance, real estate and service workers rose nationally 57% (see Note 15, above). 1.57 x $715 = $1,123. $1,123 x .01 x 175 employees = $1,960.

/18/ Revenues were estimated as follows:

(a) Water:	485,000 cu. ft. of water consumed per year x $0.00414/cu. ft. x 5% tax = $100.
(b) Gas:	29,000 therms x $0.48/therm x 5.5% tax = $770.
(c) Electricity:	840,000 kwh x $0.06/sq. ft. x 5.5% tax = $2,770.
(d) Telephone:	50,000 sq. ft. x $1.40/sq. ft. x 5% tax = $3,500.

SOURCE: Water, gas and electricity consumption estimates from Environmental Science Associates; rates from San Francisco Water Department and Pacific Gas and Electric Company. Telephone bill per sq. ft. of office space estimated as follows: total utility users' tax revenues from telephone use in fiscal year 1978-79 was $6,752,835 (San Francisco Tax Collector). That equals a total bill in San Francisco of:

$$\frac{6,752,835}{0.5} = \$135,000,000.$$

Statewide, 60% of telephone revenue comes from business phones and, in San Francisco the percentage is probably more like 70%. (Terry Orr, Pacific Telephone, telephone communication, February 25, 1980.) Assuming that 10% of this total is non-office business, the total office phone bill is .6 x $135,000,000 or $81,000,000. Office space in San Francisco totals about 59,000,000 sq. ft., so the average annual telephone bill per sq. ft. of office space is roughly $1.40.

/19/ Monthly rental income from the site was $38,883 at the end of 1979. Assuming 10% inflation, rents at the end of 1980 would be $42,770. Commercial building operators are Class 7 businesses and are taxed at 0.22% of gross receipts. $42,770 x 12 x .0022 = $1,130.

/20/ City and County of San Francisco, Annual Appropriation Ordinance, Fiscal Year Ending June 30, 1980.

/21/ The San Francisco Public Utilities Commission's proposed 1980-81 Municipal Railway Budget estimates that Muni's operating costs will be $124 million and that revenue from subventions and 1979-80 fare surpluses will total $44.6 million. Muni's head accountant estimates that there will be 139 million revenue passengers in 1980-81 and that Fast Pass holders use the Muni an average of 57 times per month (B. Bernard, personal communication,

July 21, 1980). Therefore, the average general fund deficit per ride taken with a Fast Pass is:

$$\frac{\$124,100,000}{139,000,000} - \frac{\$44,600,000}{139,000,000} - \frac{\$16.00}{57} = \$0.29.$$

/22/ Assuming 260 work days per year, two rides per day and absenteeism of 10% (holidays, vacations, sick days), each worker will ride 468 times per year. The cost is therefore:

175 workers x 26% ride Muni x 468 rides per year x $0.29 deficit per ride = $6,175.

/23/ Ward Belding, Senior Economic Analyst, BART, telephone communication, March 3, 1981.

/24/ 175 workers x 17% ride BART x 468 rides per year x $1.33 cost per ride = $18,517.

C. TRANSPORTATION, CIRCULATION AND PARKING/1/

STREET AND FREEWAY SYSTEM

The site is served by local streets and by portions of the regional freeway system (see Figure 1, p. 9). Access to the freeways connecting the downtown area with the East Bay, San Francisco Airport and the Peninsula is provided by pairs of ramps about one-half mile to the northeast (Clay-Washington), about one-half mile to the southeast (Main-Beale) and about one-half mile to the south (Harrison-Bryant). Further information on the street and freeway system is included in Appendix D, p. 330.

The site is within the Downtown Core automobile control area designated in the Downtown Transportation Plan of the Transportation Element of the

San Francisco Comprehensive Plan./2/ This area is described in the Plan as "that intensely populated area which functions as a financial, administrative, shopping and entertainment center where priority must be given to the efficient and pleasant movement of business clients, shoppers and visitors; where a continuing effort should be made to improve pedestrian, transit and service vehicle access and circulation; where priority for the use of limited street and parking space within this core should be available for these functions; and where a continuing effort should be made to reduce the impact of the private commuter vehicle." In the vicinity of the project site, Trinity St. is a designated pedestrian/transit/service street, and Market, Post, Sutter, Kearny, and Montgomery Sts. are designated transit arterial streets in the Downtown Transportation Plan./3/ As Trinity St. is less than 30 ft. in width it is also classified as an alley under Section 102.1 of the City Planning Code.

The intersections of Montgomery and Bush Sts., Bush and Kearny Sts., Kearny and Sutter Sts., and Sutter and Montgomery Sts. are controlled by traffic signals. The signals operate on a pretimed basis with green time allocations proportioned according to peak and off-peak traffic volumes. The signals on Montgomery St. at Bush St. and at Sutter St. operate as part of a pedestrian "scramble" system on weekdays. At those two intersections, a portion of the green time is used only for pedestrian movements, thus reducing the green time available for vehicle movements.

Existing traffic volumes on nearby streets are shown in Table 12, p. 96. The highest volumes during the peak hour, as well as the maximum 8-hour and 24-hour volumes, are on the streets leading to the freeways. A capacity analysis of the four intersections adjoining the project indicates that three of them (Montgomery and Sutter Sts., Bush and Kearny Sts., and Kearny and Sutter Sts.) are operating at vehicular Level of Service C or better, and that one (Bush and Montgomery Sts.) is operating at vehicular Level of Service D (see Table D-1, p. 211 for definitions and volume/capacity ratios for each vehicular Level of Service, and Table 5 for the peak hour volume-to-capacity ratios).

TABLE 5: ESTIMATED PEAK-HOUR VOLUME-TO-CAPACITY* RATIOS AT INTERSECTIONS IN THE VICINITY OF THE PROJECT SITE IN 1980

Intersection	Ratio*	Level of Service**
Montgomery and Bush	0.85	D
Bush and Kearny	0.65	B
Montgomery and Sutter	0.72	C
Sutter and Kearny	0.59	A

*Volume/capacity, where capacity is at Level of Service E
**See Table D-1, p. 211 for definitions of Levels of Service.

SOURCE: TJKM, Transportation Consultants

PARKING AVAILABILITY

A survey analysis of existing long-term (greater than six hours), commercially available, off-street parking in the area bounded by Battery, First, Mission, Fourth, Stockton, and California Sts. was conducted (see Figure 17)./4/ This area contains a total of 6,630 long-term, commercially available off-street spaces, of which 1,060 were vacant on a daily basis at the time the survey was conducted. This is equivalent to an average occupancy of approximately 85%.

Immediately surrounding the project site are 30-minute metered parking spaces, restricted to commercial use (truck loading/unloading) from 7:00 a.m. to 1:00 p.m., on the Bush St. and the Sutter St. block faces. The Bush St. spaces are in a tow-away zone from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m. The Montgomery St. curb on the project site side of the street is a yellow, commercial loading zone with no marked spaces along its entire length. It is a tow-away zone from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m. Trinity St. is posted for no parking at any time. No off-street parking is available at the project site.

Analysis of the occupancy of the on-street parking space indicates that the loading/parking areas have an average occupancy of approximately 90% during the mid-day hours. Based upon the occupancy data, the average duration of stay of a vehicle in the loading areas is 25 minutes. Thus, the loading zone

LEGEND

Study Area Boundary

Off-Street Commercial Parking Garage

FIGURE 17: PARKING SURVEY STUDY AREA

SOURCE: TJKM, Transportation Consultants

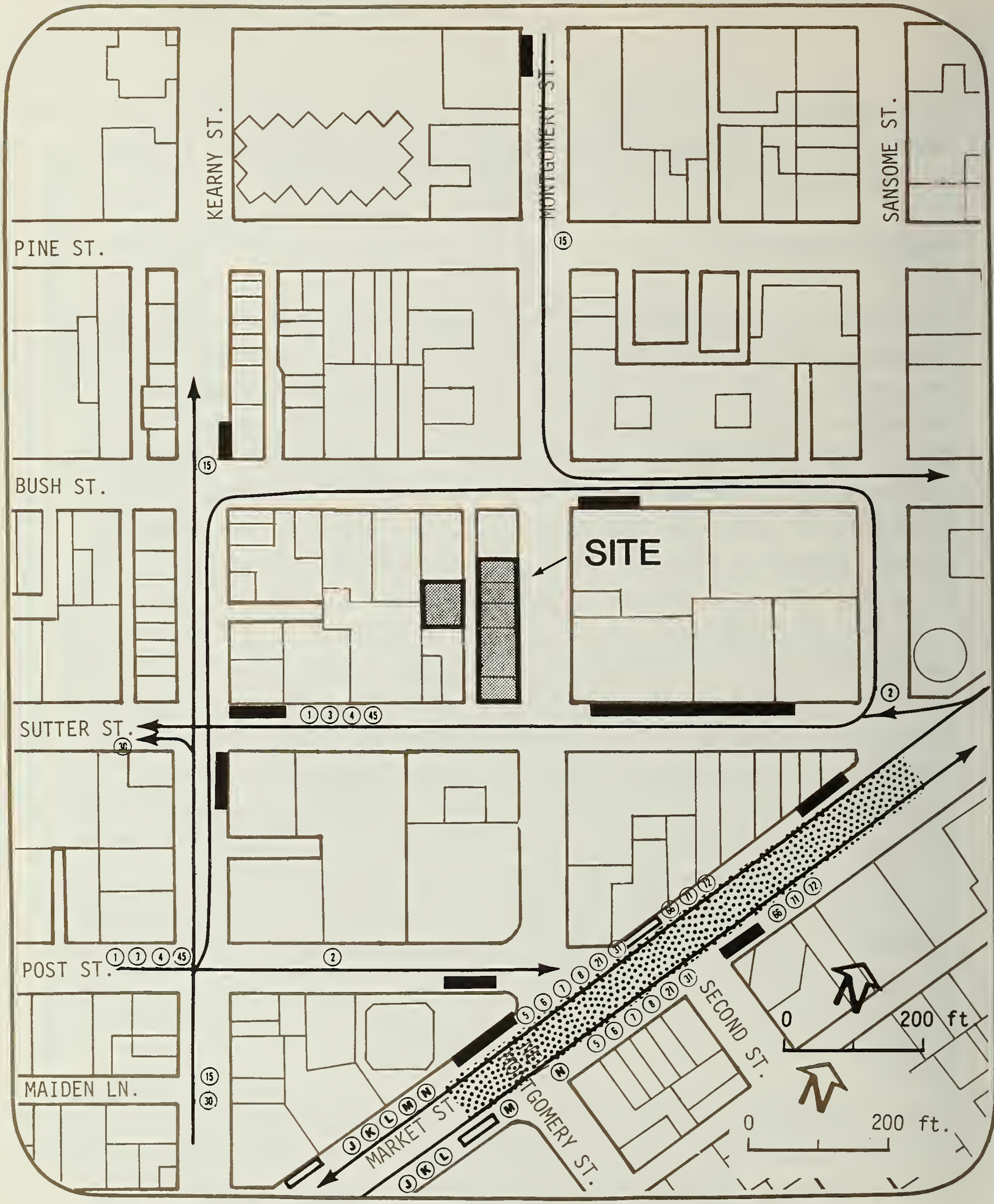
on Montgomery St. serves an average of approximately 15 vehicles per hour. No double parking was observed during the survey, but vehicles were observed to be illegally parked in red zones along the site frontage./5/

PEDESTRIAN MOVEMENTS

The sidewalks and crosswalks serving the project site have high levels of pedestrian activity during the noon period and during the morning and evening peak periods. Table 16, p. 101, shows 15-minute evening peak pedestrian flows and sidewalk levels of operation on the sidewalks surrounding the project site. The Bush St. sidewalk is sufficiently wide to allow the peak pedestrian flow to operate in unimpeded conditions (see Appendix Table D-3, p. 334, for a description of pedestrian flow regimen). The Montgomery St. and Sutter St. sidewalk pedestrian flows operate in impeded conditions during the p.m. peak. Pedestrian activity around the site during the peak periods of 7:00 to 9:00 a.m. and 4:00 to 6:00 p.m. is directed primarily from and to transit and parking facilities. Pedestrian flows during the p.m. peak are more intense than those in the a.m. peak. Noon hour flows are approximately equivalent to the p.m. peak flows./6/ Crosswalk flows at the four intersections at the corners of the project site block are high during the 4:30 to 5:30 p.m. vehicle traffic peak hour. Pedestrians crossing against the signals at the Montgomery Street intersections as well as during the all-pedestrian periods of the signal cycles maintain an almost continuous pedestrian flow across the intersections during the p.m. peak hour. The potential for vehicle/pedestrian conflicts is high at the Montgomery St. intersections during the peak periods and noon hour.

TRANSIT SERVICE

The project site is served by nine Muni electric trolley and motor coach lines providing radial service to and from the downtown area, and by five light rail vehicle lines./7/ Regional service is provided to the East Bay by the Bay Area Rapid Transit District (BART) from the nearby Montgomery Station, and by A-C Transit motor coaches from the Bay Bridge Transit Terminal on Mission St. between Fremont and First Sts. Main routes and locations of Muni stops and subway stations in the project vicinity are shown in Figure 18.



LEGEND

Motor Coach/Trolley Coach Stop

Existing Surface Street Car Stop

Montgomery Street Subway Station

Muni Route

FIGURE 18: MUNI ROUTES AND TRANSIT STOPS IN THE VICINITY OF THE PROJECT SITE

SOURCE: TJKM, Transportation Consultants

Service to the Peninsula is provided by the Southern Pacific Transportation Company (SP) from a train terminal at Fourth and Townsend Sts.; by the San Mateo County Transit District (SamTrans) which has bus routes and stops along various streets in the area, primarily on Mission St. west of First St.; and by BART, which effects transfers to SamTrans routes at the Daly City Station. The Golden Gate Bridge Highway and Transportation District (Golden Gate Transit) provides peak-period bus service to Marin and Sonoma Counties from stops on Pine and Sansome Sts., three blocks east of the site, and on Howard Street, two blocks south of the site. It also provides ferry service between terminals in Larkspur and Sausalito to and from the Ferry Building. The Tiburon Ferry Service, operated by Harbor Carriers, Inc. also terminates at the Ferry Building.

Although not traditionally considered as transit, car pooling is becoming an important form of paratransit. Golden Gate Transit operates a van pooling program to North Bay areas not served by existing motor coach routes. The RIDES car pooling program, operated under the auspices of a nonprofit, publicly funded corporation, provides consulting and matching services to help establish Bay Area van pools.

Transit agencies, except Muni, SamTrans and BART, are operating during their peak hours at less than 100% of their seated capacity. Muni, SamTrans and BART exceed their seated capacities during peak hours, but operate at less than 100% of total capacity. Although the other agencies operate at less than seated capacity during a one-hour period, specific routes are shown to experience peak-of-the-peak loadings in excess of seated capacity for periods from five to 30 minutes during the peak hour. In the experience of most agencies, the p.m. peak is more intense than the a.m. peak. (See Appendix Table D-4, p. 335, for a more detailed breakdown of transit ridership characteristics.)/8/

NOTES - Transportation, Circulation, and Parking

/1/ This section is based upon a study prepared by TJKM, Transportation Consultants, entitled "Transportation Impact Study for 101 Montgomery Street Building," April 1980. A copy of this document is available for public review at the Department of City Planning, Office of Environmental Review,

45 Hyde Street, San Francisco, and is hereby incorporated by reference into this EIR.

/2/ San Francisco City Planning Commission, Resolution 6834, April 27, 1972, Comprehensive Plan, Transportation Element.

/3/ A transit arterial street is one where priority is given to transit vehicles over autos (See Appendix D, p. 330).

/4/ The parking inventory survey was conducted on Friday, February 29, 1980. The study was conducted after the start of excavation for the George R. Moscone Convention Center and the Crocker National Bank Northern California Headquarters, and the associated loss of all parking spaces in the Third-Fourth-Howard-Folsom St. block and some in the block to its north, and the loss of parking in the Montgomery-Post-Kearny-Sutter St. block.

/5/ Supplementary parking survey, conducted on Thursday, September 25, 1980 (11:00 a.m. - 1:00 p.m.).

/6/ Pedestrian counts taken on Monday, February 25, 1980, (4:30 - 5:30 p.m.) and on Thursday, September 25, 1980 (12:00 - 1:00 p.m.).

/7/ These lines presently operate with light rail vehicles under Market St. with the exception of the J. Church line, which runs on the surface of Market St.

/8/ Observations are based on data recorded in Muni route-checker files available to the public.

D. AIR QUALITY

The Bay Area Air Quality Management District (BAAQMD) operates an air quality monitoring station at 939 Ellis St., approximately 1.2 miles to the west of the site. A three-year summary of the data collected at this station and the corresponding air quality standards appear in Appendix E, p. 342.

In general, the air quality of San Francisco is the least degraded of all the developed portions of the Bay Area. The prevailing westerly and northwesterly winds tend to carry pollutants from the City toward the East Bay and South Bay. Annual fluctuations in air quality are due to a combination of meteorological factors, which vary unpredictably, and pollutant emissions, which have been decreasing in the Bay Area and are expected to continue to do so in the near future. Highest annual pollutant concentrations in San Francisco, while exhibiting alternating fluctuations due to meteorology, have shown an overall improvement during the 1970 - 1979 period. However, annual

numbers of excesses of air quality standards, while exhibiting similar fluctuations, have not shown any clear overall trend during the same period. In 1979, a total of three excesses of the carbon monoxide and particulate standards occurred.

The entire Bay Area Air Basin has been designated by the California Air Resources Board as a non-attainment area for ozone (oxidant) and carbon monoxide; San Francisco is a non-attainment area for particulates. That is, the standards for these pollutants are now and are expected to continue to be exceeded. A regional Air Quality Plan was recently adopted which establishes control strategies to attain and maintain the standards by 1982 or 1987./1/ The BAAQMD, the Metropolitan Transportation Commission (MTC) and the State Air Resources Board (ARB) are primarily responsible for implementation of the plan.

NOTE - Air Quality

/1/ Association of Bay Area Governments, BAAQMD, and Metropolitan Transportation Commission, January 1979, 1979 Bay Area Air Quality Plan, San Francisco Bay Area Environmental Management Plan. The Federal Clean Air Act Amendments of 1977 mandate that the ozone, carbon monoxide, and particulate standards be attained by 1982, although a five-year extension to 1987 is possible in the case of ozone and carbon monoxide.

E. NOISE

As is typical of downtown San Francisco, the noise environment of the site is primarily determined by vehicular traffic. Noise levels were measured for approximately 15 minutes at each of three locations near the project site during the afternoon of Tuesday, April 15, 1980. The results are shown on Table 6.

The Environmental Protection Element of the San Francisco Comprehensive Plan indicates a day-night average noise level (L_{dn}) of 65 dBA on Montgomery St., and 75 dBA on Bush and Sutter Sts. in 1974./1/ These noise levels differ somewhat from the measurements shown in Table 6 because the calculation methodology used for the Plan does not consider complex terrain and because

TABLE 6: NOISE LEVELS NEAR PROJECT SITE IN 1980

Location	Measured L_{10}* (dBA***)	Estimated L_{dn}** (dBA***)
Montgomery St., Bush-Sutter	75	72
Bush St., Montgomery-Kearny	75	72
Sutter St., Montgomery-Kearny	73	70

*L_{10} is the noise level exceeded 10% of the time.
**L_{dn}, the day-night average noise level, is a noise measurement based on human reaction to cumulative noise exposure over a 24-hour period, taking into account the greater annoyance of nighttime noises (noise between 10 p.m. and 7 a.m. is weighted 10 dBA higher than daytime noise).
***dBA is the measure of sound in units of decibels (dB). The "A" denotes the A-weighted scale which simulates the response of the human ear to various frequencies of sound.

changes in traffic volumes, traffic composition, and vehicular noise characteristics have occurred since 1974.

NOTE - Noise

/1/ City of San Francisco, Comprehensive Plan, Environmental Protection Element, adopted September 19, 1974, p. 17. See Notes to Table 8 for definitions of L_{dn} and dBA.

F. ENERGY

The Pacific Gas and Electric Company (PG&E) furnishes electricity and natural gas to the City of San Francisco. Gas distribution mains and underground electric facilities are used by the existing structures on the site. PG&E obtains a portion of its electrical energy from renewable resources including geothermal and hydrologic power; it will meet new energy demands of Northern California customers primarily by increasing the use of coal, oil, natural gas and nuclear power.

Existing energy consumption by the six existing on-site buildings is estimated to be approximately 70,000 kilowatt-hours (KWH) of electricity and 240,000 cubic feet (ft^3) of natural gas per month at the point of use./1/

NOTE - Energy

/1/ Energy calculations using Consultants Computation Bureau, December 1977, Building Energy Analysis for Nine Typical Buildings, developed for California Energy Commission.

G. COMMUNITY SERVICES AND UTILITIES

Police protection services are provided by the San Francisco Police Department. The project site is located in Reporting Area (RA) 356 of the department's Central District. The Central District Station is located at 766 Vallejo St. (see Figure 19). The project area is patrolled by a 24-hour radio car. There are no foot patrols in the area./1/

A total of 711 incidents, including 79 violent crimes, were reported for RA 356 in 1979. This is slightly below the average for reported incidents in reporting areas in the Central District. Burglary and theft account for the largest number (394, or 56%) of reported incidents./2/ No private security personnel are presently assigned to the site.

Fire protection services are provided by the San Francisco Fire Department./3/ Locations of the nearest stations in order of response are as follows (see Figure 19):

1) Engine 13 and Truck 13 at 530 Sansome Street
2) Engine 35 at 676 Howard St., and
3) Engine 1, Truck 1 and Rescue Squad 1 at 416 Jessie St.

Current response time to the project site from each of the above stations is less than four minutes. A fire alarm box is located at Montgomery and Bush Sts. The Fire Department can currently deliver 19,000 gallons per minute

LEGEND

- Central Police Station
- Police Statistical Reporting Area No. 356
- ● Fire Stations of First Alarm Response
- * High Pressure Hydrant
- + Low Pressure Hydrant

FIGURE 19: POLICE AND FIRE SERVICES

SOURCE: Environmental Science Associates, Inc.

of water to the site from hydrants located on Montgomery, Sutter and Bush Sts. (see Figure 19).

Each of the buildings on the project site was built prior to the adoption of current code requirements for life safety systems and lacks most modern fire safety features (e.g. smoke-proof enclosures and stairways, fire-resistant construction materials, etc.).

Water for San Francisco come from the Hetch Hetchy system via the San Andreas and Crystal Springs Reservoir. Water services are provided by the San Francisco Water Department. The project area is served by the University Mound Reservoir, a storage reservoir with a capacity of 140 million gallons. Current water use on the site is approximately 261,000 gallons per month. Two mains presently serve the project site, a six-inch diameter main in Sutter St. and an eight-inch diameter main in Montgomery St./4/

Sewer Service is provided by the Bureau of Sanitary Engineering of the San Francisco Department of Public Works, which operates a combined stormwater and sanitary sewer system. The project site is served by 3-ft. by 5-ft. rectangular underground brick sewers located along the centerlines of Sutter and Montgomery Sts./5/

Stormwater runoff and sewage flows from the site area flow for treatment to the North Point Pollution Control Plant, which has a dry-weather treatment capacity of 65 million gallons per day (MGD)./6/ Current average dry-weather flows to the plant are 50 MGD./7/ City treatment plants are not designed to handle storm flows from rainfall greater than 0.02 inches per hour; excess flows bypass the plants and discharge directly into San Francisco Bay. Plans are presently being implemented to reduce these overflows and bring the City sewer system into compliance with Regional Water Quality Control Board requirements. Bayside dry-weather facilities for secondary treatment are scheduled for completion in September 1982. Dry-weather flows from the area would be treated at the Southeast Water Pollution Control Plant which would have a dry-weather treatment capacity of 80 MGD after expansion. The North Point Plant would treat wet-weather flows until completion of the Citywide

wet-weather system, now scheduled for about 1990, and at that point the North Point Plant would probably be closed./8/

Solid waste service is provided by the Golden Gate Disposal Company which collects solid waste from the project site and vicinity, under contract to the City of San Francisco. Wastes are taken to a transfer station north of Brisbane and then transported to a landfill site at Mountain View Shoreline Regional Park. The landfill contract with the City of Mountain View expires in 1983 and no other agreements have as yet been secured for disposal of San Francisco's solid wastes at the Mountain View site or any other landfill site. The Sanitary Fill Company, operator of the transfer station, has prepared a proposal for a resource conversion center, which would be constructed south of the site of the existing transfer station, in the City of Brisbane. Combustible and non-combustible materials would be separated; combustible materials would be burned to produce energy; and non-combustible materials would be either separated for sale or sent to a landfill. The City of San Francisco is currently reviewing this proposal and several other alternatives, but no decision has yet been reached./9/

Other utilities are supplied by Pacific Gas and Electric Company, which provides electricity, natural gas and steam to the downtown area,/10/ and Pacific Telephone and Telegraph Company, which provides telephone service.

NOTES - Community Services and Utilities

/1/ P. Libert, Officer, Planning and Research Division, San Francisco Police Department, telephone communication, February 14, 1980.

/2/ San Francisco Police Department, Incidents for Which a Police Report Was Made, by District, Plot and Crime, Jan - Dec, 1979.

/3/ R. Rose, Chief, Division of Planning and Research, San Francisco Fire Department, letter communication, February 26, 1980. This letter is available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde St., Room 319.

/4/ J. Kenck, San Francisco Water Department, City Distribution Division, letter communication, February 19, 1980. This letter is available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde St., Room 319.

/5/ M. Francies, Engineering Associate II, Sewer Investigation, Engineering Department, San Francisco Wastewater Program, letter communication, February 15, 1980. This letter is available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde St., Room 319.

/6/ M. Francies, Engineering Associate II, Sewer Investigation, Engineering Department, San Francisco Wastewater Program, telephone communication, February 20, 1980.

/7/ R. Chin, Plant Supervisor, North Point Pollution Control Plant, telephone communication, February 20, 1980.

/8/ D. Hayashi, Coordinator of Public Participation, San Francisco Wastewater Program, telephone communications, March 7 and July 22, 1980.

/9/ Resource Conversion Center, Final Environmental Impact Report, Prepared for the City of Brisbane, California, June 1980, State Clearinghouse Number 79051401. The document is available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde St., Room 319, file no. EE 79.307/NLA.

/10/ L. Cordner, Engineering Office Representative, San Francisco Division, Pacific Gas and Electric Company, telephone communication, February 7, 1980.

H. GEOLOGY, SEISMOLOGY AND HYDROLOGY

GEOLOGY

The site is located on generally flat land about 3,200 ft. southwest of San Francisco Bay (see Figure 1, p. 9), and about 31 ft. above the San Francisco datum (in which elevation 0 is 8.6 ft. above mean sea level). Higher land is located to the northwest at Nob Hill, to the north at Telegraph Hill, and to the southwest at Rincon Hill.

The site is located in an area of unengineered artificial fill consisting of dune sand, silt, clay, rock waste from building excavations, organic material, and garbage. No site-specific geotechnical report has been prepared for the project site. However, a preliminary soils investigation based upon geologic data for the immediate vicinity indicates that approximately 120 ft. of non-rock materials overlie bedrock at the project site./1/ In general, the geologic materials under the site are expected to consist of dense, clayey sands, and stiff old Bay muds. These materials are capable of bearing heavy loads with compressions of no more than one or two inches and are therefore

suitable as a foundation base./2/ The artificial fill material, however, is generally unsuitable as a foundation base as it is subject to compression and differential settlement under heavy building loads. The existing building at 109-123 Montgomery St. has settled at least six inches at its southern end.

SEISMOLOGY

No active faults/3/ are known to be located within the City, but several active faults affect it. These include the San Andreas Fault, about 9.5 miles southwest of the site; the Hayward Fault, about 15.5 miles east of the site; and the Calaveras Fault, about 30 miles east of the site.

Both the San Andreas and the Hayward Faults have recent history of major and minor movements. Large and small earthquakes can be expected in this region in the future. Within the next 60 to 170 years (estimates of recurrence intervals vary), at least one earthquake of the magnitude of the 1906 San Francisco earthquake (about 8.3 on the Richter scale of magnitude, a logarithmic scale developed to measure earthquake magnitude by the energy released), and several earthquakes comparable to the 1957 Daly City earthquake (Richter 5.3) can be expected to affect the proposed building.

The maximum expected earthquake that could affect the site could potentially cause "strong" ground shaking, which would produce general, but not universal, falling of cornices and cracking of masonry and brickwork. Collapse of new structures would probably be uncommon. The maximum expected earthquake could also cause liquefaction,/4/ with resultant lateral ground slippage and bearing capacity failure,/5/ or settlement of foundation bearing materials.

The six buildings that occupy the project site were built prior to adoption of any required seismic design standards, and do not conform to the present standards of the San Francisco Building Code. Except for the California Pacific Building, which has a steel frame, the buildings on the site generally consist of unreinforced brick and masonry construction with some overhanging cornices, brick cladding, and terra cotta ornamentation. These features pose a potential hazard of falling during a major earthquake. Accordingly, the Department of Public Works, Bureau of Building Inspection, has cited the buildings on the project site for violation of the parapet safety provisions

of the San Francisco Building Code and has requested that the buildings be ordered vacated, repaired, altered or demolished.

HYDROLOGY

No water bodies, springs or water courses are located on or near the project site. The site is in a low-lying area relative to its surrounding topography and if naturally drained would receive the runoff from surrounding areas to the north and west. Surface runoff is discharged into a combined sanitary sewer and storm drain system, and is transported to the North Point Water Pollution Control Plant. The drainage system is designed to handle the runoff which would occur during a five-year storm./6/ Runoff from larger storms exceeds the capacity of the system, however, and the excess is carried in the streets. In addition, due to insufficient treatment capacity, stormwater runoff currently causes an average of 80 overflows of wastewater per year into the Bay. Wastewater management system improvements currently under design and construction would reduce the number of such overflows from large storms to approximately one to eight per year./7/

The groundwater table at the site is expected to be about 30 feet below street grade and may slope downward from the northwest to southeast across the site./2/

NOTES - Geology, Seismology and Hydrology

/1/ Woodward-Clyde Consultants, 1979, Geotechnical Investigation Interim Report, Crocker National Bank Building, Post and Kearny Streets, San Francisco, California, Project 14210A. A copy of this document is available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde St., San Francisco.

/2/ C. Basore, Associate, Woodward-Clyde Consultants, letter communication concerning adjacent Crocker National Bank Headquarters (EE 78.298), August 16, 1978.

/3/ Active faults are those which have a historic record of activity or show other geophysical evidence of movement within approximately the last 10,000 years.

/4/ Liquefaction is the transformation of granular material, such as loose, wet sand, into a fluid-like state similar to quicksand.

/5/ Blume, John A., 1974, San Francisco Seismic Safety Investigation, Geologic Evaluation.

/6/ A five-year storm is the largest storm which would be expected to occur in a geographic area once in approximately five years. It has a 20% probability of occurring once any given year.

/7/ Metcalf and Eddy, Engineers, February 1978, Southwest Water Pollution Control Plant Project, Interim Planning Criteria Report.

IV. ENVIRONMENTAL IMPACT

A. URBAN DESIGN FACTORS

CULTURAL RESOURCES/1/

The proposed project would require the demolition of six small-scale buildings on the project site. Two of the buildings, the California Pacific Building at 105 Montgomery St. and the Steil Building at 141-145 Montgomery St. are rated "B" in the Heritage Survey ("2" and "1", respectively, in the City Survey); and three of the structures, 109-123, 125-129, and 133-137 Montgomery St. are rated "C" ("0" in the City Survey). The sixth building, located at 25 Trinity St., is not rated in either survey. The Alexander Building at 149-157 Montgomery, adjacent to the project site, is also rated "B" in the Heritage Survey ("1" in the City Survey). The project sponsors presently own this structure and plan to retain it.

The Retail-Shopping District abuts the project site and is identified by the 1978 Heritage Inventory as eligible for listing on the National Register of Historic Places. The district includes the California Pacific Building which acts as an effective end point for the structures along the north side of Sutter St., between Kearny and Montgomery Sts. This block, which includes the Hallidie Building, is considered to be one of the most important streetfront architectural groupings in downtown San Francisco. The streetscape represents a capsule history of the architecture of the area. Removal of the California Pacific Building and construction of the project would change the architectural integrity of the Hallidie block.

As the project site is inland of the original shoreline of Yerba Buena Cove, and would require little new excavation, the project would be expected to have no effect upon subsurface historic or prehistoric resources.

LAND USE AND ZONING

● The project would comply with the general objectives of the San Francisco Comprehensive Plan, and with the objective stated in Section 210.3 of the City Planning Code that the C-3-O, Downtown Office District, play a leading national role in finance, corporate headquarters and service industries, and serve as an employment center for the region.

The project height of 405 ft. would be 95 ft. lower than the maximum permitted height of 500 ft.; the building length of 170 ft. (above a height of 150 ft.) would be the maximum permitted; and the maximum diagonal dimension of about 180 ft. would be about 20 ft. less than the maximum permitted diagonal dimension of 200 ft. (above a height of 150 ft.).

The basic floor area ratio (FAR) of 14:1 would allow about 203,000 gross sq. ft. of building area on the proposed building site east of Trinity St. (Lots 2 - 6), including allowance for the transfer of development rights from the proposed surface loading area (Lot 26) west of Trinity St. (see Appendix F, p. 344, for floor area calculations). In addition, the project would qualify for an overall allowance of 74,000 sq. ft. under the provisions of Section 126 of the City Planning Code. This allowance would consist of bonuses for proximity to BART access (7,400 sq. ft.), multiple building entrances (10,000 sq. ft.), sidewalk widening (22,200 sq. ft.) shortened walking distance between streets (6,800 sq. ft.), a side setback (7,600 sq. ft.), and a public observation deck (10,600 sq. ft.). Added to the basic allowable floor area of 203,000 sq. ft., these bonuses would allow a total gross floor area of about 277,000 sq. ft. which is equal to that proposed (see Appendix F, p. 344).

The proposed arcade along the Montgomery St. frontage of the project tower would increase the total width of the pedestrian area by approximately 10 ft., to 21 ft. A similar arcade combined with a building setback of about 15 ft. on the Sutter St. frontage would increase the total width of that pedestrian area by about 25 ft., to 35 ft.

- The project would lessen the retail diversity of the site by reducing the number of street level retail uses from 13 to between four and ten. The effect of this change on the retail diversity of the general area would be reduced by the construction of three-level retail galleria in the Crocker project (EE 78.298) across Sutter St. from the project site.

PROJECT VISIBILITY

The project would be visible from long-range viewpoints as well as neighboring buildings and street level areas in surrounding blocks. From Twin Peaks the project would be visible as part of groups of buildings of similar or greater height (see Figure 20). From portions of Telegraph Hill, the eastern part of the structure would be visible, but would be partially masked by the Russ Building (see Figure 21, p. 67).

The project would be visible in the downtown skyline from higher topography and buildings to the west, northwest, and south; including southern approaches to the City on the James Lick and Southern freeways, and Potrero Hill (see Figure 22, p. 68).

Views of the project from adjacent streets would include all or parts of the tower. Views of the project from Montgomery St. between Bush St. and Market St. would include the full height of the tower, except as seen from the north, where the 15-story Alexander Building would mask the lower portion of the project. From Sutter St. between Grant Ave. and Montgomery St., the project would be visible above lower structures, including the Hallidie Building and the French Bank Building. East of Montgomery St. on Sutter St., the project would be partially masked by the Equitable Life Building. From Market St. near Montgomery St., the project would be partially visible around and above the Hunter-Dulin Building at 111 Sutter St. The project would interrupt some views of the Bay from the upper stories of the Hunter-Dulin Building, Wells Fargo Building and Equitable Life Building; and would interrupt some views of distant open space to the south and west from the Russ Building, Alexander Building, Mills Building and 180 Montgomery St. The project would interrupt few views to the Bay from neighboring structures to

STRUCTURES PROPOSED OR UNDER CONSTRUCTION:

1 Hilton Tower No. 2
2 Holiday Inn
3 Hotel Ramada
4 Crocker Bank
5 101 California St.
6 One Sansome St.
7 Hunt-Knight Building
8 Pacific III
9 111 Jessie St.
10 5 Fremont Center
11 Pacific Gateway
12 315 Howard St.

EXISTING STRUCTURES:

A Transamerica Building
B Bank of America
C Foremost-McKesson (Aetna) Building
D One Market Plaza

SOURCE: Environmental Science Associates, Inc.

FIGURE 20: VIEW FROM TWIN PEAKS (REVISED)

PROJECT
Transamerica Building
Russ Building
Foremost-McKesson (Aetna) Building
Bank of America World Headquarters

SOURCE: Environmental Science Associates, Inc.

FIGURE 21: VIEW FROM TELEGRAPH HILL (MONTGOMERY AND GREEN STS.)

PROJECT

STRUCTURES PROPOSED OR UNDER CONSTRUCTION	1 Pacific III 2 Crocker Bank 3 456 Montgomery St. 4 Hunt-Knight Building	5 One Sansome St. 6 111 Jessie St. 7 101 California St. 8 5 Fremont Center	9 Pacific Gateway 10 101 Mission St. 11 315 Howard St.
EXISTING STRUCTURES	A Bank of America B Transamerica Building C 111 Sutter St.	D 45 Fremont St. E One Market Plaza	

SOURCE: Environmental Science Associates, Inc.

FIGURE 22: VIEW FROM POTRERO HILL (REVISED)

the west, because most such views are already blocked by intervening structures. In general, interrupted views from neighboring structures would be replaced by similar views from the proposed structure. The proposed 15-ft. setback on Sutter St. would reveal the southeastern corner of the adjacent French Bank Building, which is rated "A" in the Heritage Survey ("4" in the City Survey) (see Figure 12, p. 26).

As the proposed project would increase building heights and reduce the degree of facade diversity along the west side of the 100-block of Montgomery St., it would also increase the so-called 'canyon effect' in the project block.

SUNLIGHT AND SHADOW

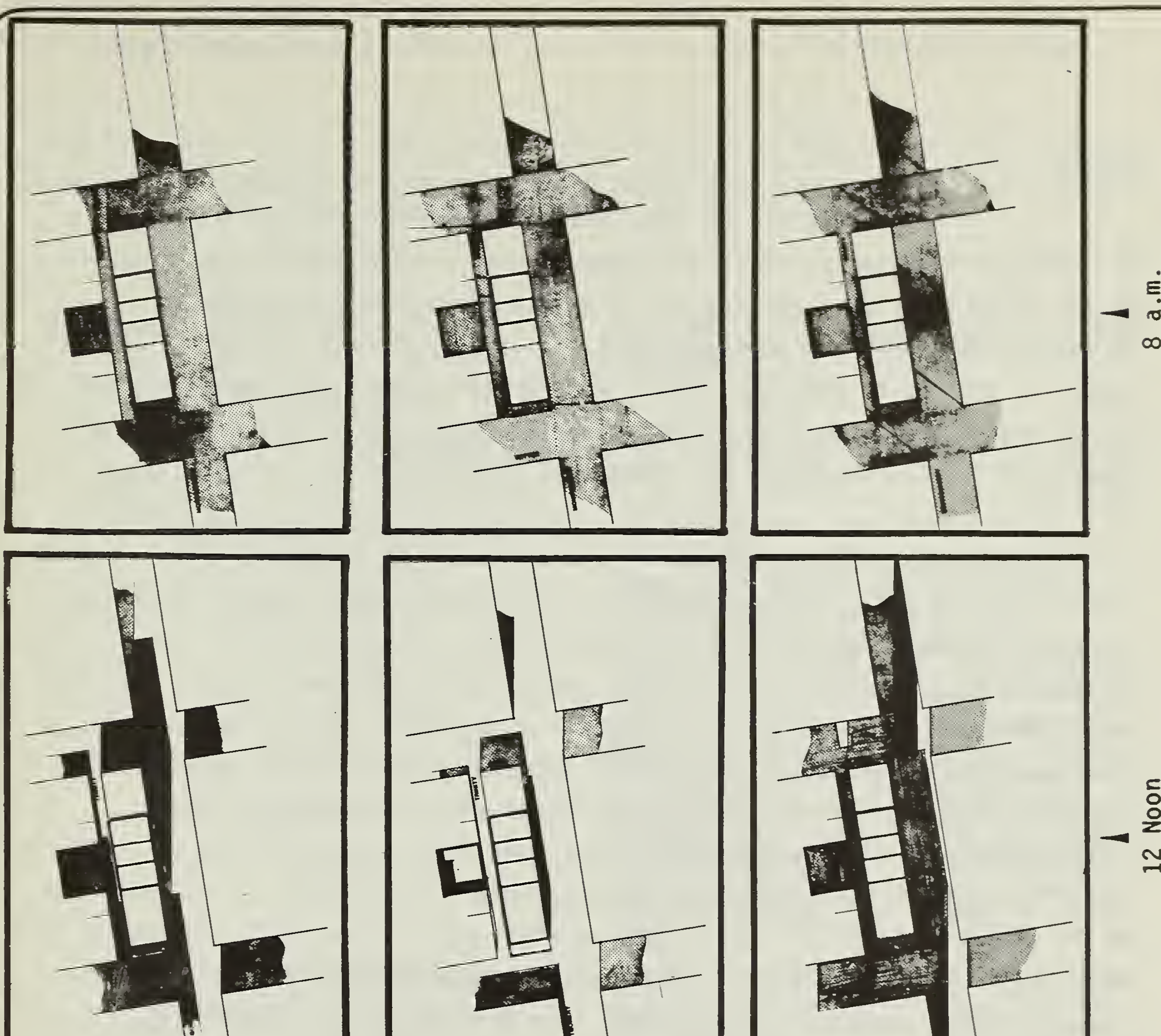
The project, in replacing existing low-rise structures on the site, would create more extended shadow patterns than those that exist at present. Some of these shadow patterns, however, would coincide with those cast by existing development in the area and would therefore result in no net new shadow effects (see Figure 23).

During early morning hours at all seasons of the year, the street and sidewalk areas on Montgomery, Bush and Sutter Sts. would be shaded by both the project and existing structures.

From late morning to mid-afternoon during summer months, the project would cast shadows on the west side of Montgomery St. During fall, winter and spring months, it would cast midday and mid-afternoon shadows on Montgomery St. north of Bush St.

During late afternoon hours in spring, summmer and fall months, the project would cast shadows on the east side of Montgomery St., including areas not presently in shade. During summer months, shadows would extend to Sutter St. east of the site. In winter months, the late afternoon shadows cast by the project would be similar to those cast by existing structures.

The project would not shade any existing public parks or plazas. The widened sidewalk area proposed for the Sutter St. (southern) frontage of the project site would be shaded during most daylight hours at most times of the year, but would receive midday and afternoon sunlight during late spring and early summer months.



Mid-March and Mid-Sept. Mid-June Mid-December

(NOTE: Dark shading indicates net increase in shadow due to project)

SOURCE: William Schuppell & Associates

FIGURE 23: PROJECTED SHADOW PATTERNS IN VICINITY OF PROJECT

WIND/2/

According to wind-tunnel tests described earlier (see Section III.A, Urban Design Factors, p. 32), the project would change northwest wind speed ratios/3/ along Bush and Montgomery Sts. by less than 10%. The ratios would remain in the low to moderate range. Wind speed ratios would increase by 5% to 20% near the intersection of Sutter and Montgomery Sts., where maximum wind speed ratios would remain in the moderately high range.

For west winds, wind speed ratios would increase by 5% to 30% at the intersection of Bush and Montgomery Sts. The maximum wind speed ratio at this intersection would increase from moderately high to high. East of Montgomery St. on Bush St., wind speed ratios would decrease by 5% to 25%, but would remain in the moderate to moderately high range. Along Montgomery St., wind speed ratios adjacent the building entrance would increase by about 20%, but would remain moderate. Wind speed ratios would increase near the intersection of Sutter and Montgomery Sts. and along the north side of Sutter St. east of the site. The greatest impact would occur at the south end of the proposed building, where moderate wind speed ratios would increase to moderately high. Wind speed ratios along the Montgomery St. frontage of the proposed public open space would range from moderately low to moderate.

URBAN DESIGN PLAN

The Urban Design Element of the San Francisco Comprehensive Plan/4/ provides a basis in City policy for summarizing the urban design implications of the proposed project described in this section (see Table 7).

NOTES - Urban Design Factors

/1/ This section is based upon a study prepared by Charles Hall Page and Associates, Inc. entitled "101 Montgomery Street Building Report," March 1980. A copy of this document is available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, San Francisco, and is hereby incorporated by reference into this EIR.

/2/ This section is based upon a study prepared by Environmental Impact Planning Corporation, Inc., entitled "Microclimate Impact Study for the Proposed 101 Montgomery Street Building," May 1980. A copy of this document

TABLE 7: RELATIONSHIP BETWEEN APPLICABLE URBAN DESIGN POLICIES OF THE SAN FRANCISCO COMPREHENSIVE PLAN* AND THE PROPOSED PROJECT

APPLICABLE URBAN DESIGN POLICIES	RELATIONSHIP OF PROJECT TO APPLICABLE POLICIES
A. Policies for City Pattern	
1. Policy 1-"Recognize and protect major views in the City, with particular attention to those of open space and water." (p. 10)	The project site is outside the City's major designated view corridors along Pine St., one block to the north, and California St., two blocks to the north. The project would interrupt some views of the Bay to the north from the upper stories of the Hunter-Dulin Building, Wells Fargo Building and Equitable Life Building; and would interrupt some views of distant open space to the south and west from the Russ Building, Alexander Building, Mills Building and 180 Montgomery St. The project would interrupt few views to the Bay from neighboring structures to the west, because most such views are already blocked by intervening structures.
2. Policy 3-"Recognize that buildings, when seen together, produce a total effect that characterizes the City and its districts." (p. 10)	The project would be visible, but not prominent, in many distant views of the downtown skyline. It would join a number of other comparably sized, relatively recent highrise buildings in the downtown area. Collectively, these buildings provide the major visual identification for the central business district.
3. Policy 5-"Emphasize the special nature of each district through distinctive landscaping and other features." (p. 12)	See Items 4, 6 and 8 below. The Sutter St. frontage of project tower would be set back about 15 ft. to reveal the southeast corner of the adjacent French Bank Building, rated "A" in the Heritage Survey ("4" in the City Survey).

4. Policy 6-"Make centers of activity more prominent through design of street features and by other means." (p. 12)	The project would include a pedestrian arcade and street trees along its Montgomery and Sutter St. frontages; a widened sidewalk area along its Sutter St. frontage planters along its Trinity St. frontage; a brick-paved pedestrian surface throughout the entire area bounded by Bush, Montgomery and Sutter Sts. and the western edge of Trinity St.; and retail uses at street level. Present project plans show a reduction in the number of street-level retail establishments from 15 to between four and ten. Street furniture and bicycle racks are not presently included in project plans. No detailed landscaping plans for the street frontages or the proposed loading area are presently available.
5. Policy 8-"Increase the visibility of major destination areas and other points for orientation." (p. 13)	See Item 2 above. The project would introduce another tower into the skyline of the central business district, and would help mark the western edge of the Financial District.
B. Policies for Conservation	
6. Policy 4-"Preserve notable landmarks and areas of historic, architectural or aesthetic value, and promote the preservation of other buildings and features that provide continuity with past development." (p. 25)	The project would require demolition of six buildings built in 1907-1921. Two of these buildings (Steil and California Pacific) are rated "B" in the Heritage Survey ("1" and "2" in the City Survey); three are rated "C" ("0"); and one is not rated. The adjacent Alexander Building ("B" and "0"), which is also owned by the project sponsors, would be retained.
7. Policy 6-"Respect the character of older development nearby in the design of new buildings." (p. 25)	In general, the project tower would represent a departure in style and scale from neighboring older development to the west, and would represent a departure in style from neighboring older development to the north and south. Various design features and details, however, are intended by the architect to complement older development nearby. These would include segmental, bowed, bay projections with sculptured ornamental cornice bands; granite-colored masonry exterior, iron ornamental railings at the second,

15th, and 25th floors, and the two-story connecting structure between the project tower and the Alexander Building. Existing views across the site to historic structures to the south and west would be reduced.

Provision of a loading area on the present site of 25 Trinity St. would create a gap in the building facades that presently line the street. Plans for the proposed loading area have not yet been prepared.

C. Policies for Major New Development

8. Policy 1-"Promote harmony in the visual relationships and transitions between newer and older buildings." (p. 36)

See Item 6, above. According to the Urban Design Plan, the surfaces of large buildings should be articulated and textured to reduce their apparent size and to reflect the pattern of older buildings. The masonry exterior of the project would be similar in material to those of most neighboring buildings. The proposed iron railing detail would be similar to ornamentation found on the adjacent French Bank Building. Surface articulation and texture would be provided by the segmental shape of the precast concrete (which would create continuous vertical bay projections), by sculptured cornice bands at each floor and by a fluted skin treatment of the precast concrete panels at the upper floors (which would also help visually terminate the structure). Horizontal cornice lines at the first two floors would help define street scale. The project would reduce the visual richness, variety and character of the blockfront.

9. Policy 2-"Avoid extreme contrasts in color, shape, and other characteristics which will cause new buildings to stand out in excess of their public importance." (p. 36)

See Item 7, above. The project would be basically rectilinear in form. The solar gray glass and light-colored concrete exterior materials would impart medium to light color values to the project. These values would shift depending on time of day, natural lighting conditions, and reflected sky colors.

10. Policy 4-"Promote building forms that will respect and improve the integrity of open spaces and other public areas." (p. 36)

See Items 1 and 8, above. The project would increase shadows in adjacent

	streets, but not in any existing public park or plaza. The widened sidewalk area proposed for the Sutter St. (southern) frontage of the project site would be shaded during most daylight hours at most times of the year, but would receive midday and afternoon sunlight during late spring and early summer months. The proposed brick paving would help visually integrate the eastern portion of the project block.
11. Policy 5-"Relate the heights of buildings to important attributes of the City pattern and to the height and character of existing development." (p. 36)	See Items 2 and 4, above. The project would be comparable in height to other highrise buildings which comprise the downtown skyline, including neighboring buildings to the north, east and south, but would be generally taller than neighboring low-rise and mid-rise development to the west. The project height of 405 ft. would be 95 ft. less than the permitted maximum height of 500 ft.
12. Policy 6-"Relate the bulk of buildings to the prevailing scale of development to avoid an overwhelming or dominating appearance in new construction." (p. 37)	See Item 10, above. The maximum horizontal dimensions of the project would be comparable in scale to those of neighboring buildings to the north, east and south, but would be generally greater than those of neighboring buildings to the west. The maximum exterior facade dimension of the project tower would be 170 ft., the maximum permitted. The minimum exterior facade dimension would be 60 ft., 110 ft. less than the maximum permitted. The maximum horizontal diagonal dimension would be approximately 180 ft., 20 ft. less than the permitted maximum of 200 ft. The two-story connecting structure between the project tower and the Alexander Building would be similar in scale to neighboring buildings to the west, and would be reminiscent of existing buildings on the project site.
13. Policy 13-"Improved pedestrian areas by providing human scale and interest." (p. 57)	See Item 4, above.

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*City and County of San Francisco, 1971, Comprehensive Plan, Urban Design Element (page references shown in parentheses).

SOURCE: Environmental Science Associates, Inc.

is available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, San Francisco, and is hereby incorporated by reference into this EIR.

/3/ Windspeeds at various points on and near the project site were recorded as percentages of the calibration wind speed, which is measured at the top of the Federal Building at 50 Fulton St., about 1.2 miles southwest of the site. Windspeeds are described as velocity ratios which correspond to percentages of the calibration windspeeds, as shown below.

Velocity Ratio	Ratio of Pedestrian Level Windspeed to Calibration Windspeed
Low	- 0.19
Moderately Low	0.20 - 0.29
Moderate	0.30 - 0.49
Moderately high	0.50 - 0.69
High	0.70 - 1.00
Very high	Greater than 1.00

/4/ City and County of San Francisco, 1971, Comprehensive Plan, Urban Design Element.

B. EMPLOYMENT, HOUSING AND FISCAL FACTORS/1/

ON-SITE COMMERCIAL FLOOR AREA

The project would require demolition of 30,185 net leasable sq. ft. of office space at the site and would add 248,350 net leasable sq. ft. of office space. The project would also remove 19,900 net leasable sq. ft. of retail/restaurant space and would replace it with 5,900 net leasable sq. ft. of retail space./2/

EMPLOYMENT AND TENANT MIX

Project Site Employment

About 1,060 permanent jobs would be accommodated at the project site. Without information about specific tenants, this number was derived by applying average sq. ft. per employee numbers for the various uses of the building to

the estimated floor area that would be devoted to each use, as shown in Table 8. The net increase in employment at the site, after subtracting the number of jobs at the site in early 1980, would be approximately 890.

TABLE 8: PROJECTED PERMANENT EMPLOYMENT AT PROJECT SITE

Employment Type	Building Space (Sq.Ft.)*	Space Per Employee (Sq. Ft.)	Projected Number of Employees
Office	248,000 Net	240 Net	1,033
Goods and Services			
Retail	5,900 Net	350 Net**	17
Janitors	277,000 Gross	30,000 Gross***	9
TOTAL			1,059

*J. Peter Cahill, Cahill Construction Company, written communication, April 4, 1980.
**Based on employment and space use in existing buildings at the site. Twelve goods and service retail tenants with 39 employees occupy 13,430 net sq. ft. of space, or 344 sq. ft. per employee.
***Rodger Dillon, Secretary-Treasurer, Building Service Employees Union, Local 87, telephone communication, April 7, 1980.

SOURCE: Recht, Hausrath and Associates

Growth of Employment

Total employment in downtown San Francisco would directly increase by 890 jobs due to the project. This new employment would generate additional employment through the multiplier effect, as explained below.

Bay Area Multiplier Effects

The multiplier can be derived from an input-output (I-O) model of the Bay Area economy. Assuming that the new jobs accommodated as a result of the project were primarily in the finance, insurance, and real estate industry (FIRE), Table 9 shows (based on the Bay Area Input-Output Model) that about 920 additional jobs in other sectors of the Bay Area economy would result from the

TABLE 9: PROJECTED SECONDARY BAY AREA EMPLOYMENT INDUCED BY PROJECT OPERATION

Industry	Employment
Agriculture and Primary Processing	23
Construction	59
Manufacturing	118
Transportation, Communications, Utilities	96
Trade	180
FIRE	148
Services and Government Enterprises	297
TOTAL	921

SOURCE: Recht, Hausrath and Associates (see Note/3/).

growth of the FIRE industry./3/ Approximately 340, or 37%, of these jobs would be blue collar jobs./4/

The total number of Bay Area jobs that would be supported by the growth in downtown employment would be about 1,810 (the 890 initial jobs plus the 920 jobs induced by the multiplier).

San Francisco Multiplier Effects

Because the I-O Model encompasses the entire Bay Area, it is difficult to determine the number of new secondary jobs that would be located in San Francisco. Many, however, would necessarily be in San Francisco, such as bicycle messengers, bus drivers, copy machine repairers, restaurant employees, and printers.

Consumer expenditures by employees would account for about half of the Bay Area multiplier effects identified above/5/ (the remainder being purchases by businesses). Regarding this component, it has been estimated that permanent, downtown employees who live in San Francisco would each support, through their

expenditures, an additional 0.6 jobs in San Francisco, while each non-resident permanent employee would support 0.13 additional jobs./6/ As it is estimated that 40% of project employees would be San Francisco residents (see Table 4, p. 41), approximately 280 additional jobs would be supported in San Francisco by the consumer expenditures of those holding the permanent jobs added in downtown. Permanent downtown employment plus this secondary employment would total 1,170 jobs.

Construction Employment

It is estimated that the project would require about 140 person- years of construction labor. Over the 1-1/2 - year construction period, an average of about 95 construction workers would be employed at any one time./7/

Based on the Bay Area Input-Output Model, Table 10 shows that about 220 additional labor years of employment would be generated in the Bay Area as a result of the multiplier effect of project construction.

TABLE 10: PROJECTED SECONDARY BAY AREA EMPLOYMENT INDUCED BY PROJECT CONSTRUCTION

Industry	Labor Years of Employment
Agriculture and Primary Processing	5
Construction	3
Manufacturing	48
Transportation, Communications and Utilities	23
Trade	50
FIRE	23
Services and Government Enterprises	69
TOTAL	221

SOURCE: Recht, Hausrath and Associates (see Note/3/).

Construction employees would have a larger multiplier effect from consumption expenditures than permanent workers, as average wages for construction employees are higher. San Francisco residents employed as construction

workers would support an additional 0.9 jobs in San Francisco through their expenditures. Construction workers who live outside San Francisco would spend less of their income in San Francisco and so would support only an additional 0.33 jobs in San Francisco./8/ Approximately 45% of construction workers on the project would live in San Francisco,/9/ so project construction employment would support an additional 56 jobs for a year and a half in San Francisco.

Relocation

Sixty businesses employing about 175 people would be, or have been, displaced from the project site. Vacancy rates for Financial District space comparable to that at the project site are very low; most available space is at higher rents./10/

CUMULATIVE OFFICE SPACE AND EMPLOYMENT EFFECTS

The proposed project, together with other major downtown office buildings under construction or proposed, would add 10.9 million sq. ft. of office space if all were built (see Table 2, p. 35). The project would represent about 2.5% of this total. At 1970-79 absorption rates, this is equivalent to about a 6-7 year supply. Low vacancy rates and rising rents, however, suggest that supply has been less than demand. Therefore, if more space were made available, absorption rates would probably rise. Further, the addition of space would tend to release some of the upward pressure on rents caused by the present shortage of supply in relation to demand.

The growth of office space would continue the trend of strong regional growth in service-sector and office headquarters activities and employment. The larger, newer buildings would be occupied primarily by larger tenants and those with the ability to pay higher rents. The availability of generally less expensive space in existing buildings would continue to shift toward Civic Center and locations at the periphery of the Financial District, primarily south of Market St. The addition of large amounts of new downtown office space would probably tend to continue office activities to a more centralized Financial District location; whereas less Financial District development would tend to create more pressures for decentralization.

New increases in downtown office space and employment would increase the demand for retail goods, food services, and business services in the area. To the extent that the new office space would not be occupied by firms providing these services, demand would increase for existing space and possibly for further new development.

From a cumulative perspective, the multiplier effects described above would support additional employment in San Francisco and throughout the Bay Area in a number of different industry and occupation groups.

HOUSING

The project would increase demand for housing in San Francisco. It is estimated that 15 to 30% of the people who would become employed in San Francisco as a direct result of the project would move into San Francisco./11/ Because the project would accommodate an increase in San Francisco employment of 890 jobs, 135 to 265 workers would move into the City as a result of the project. It is estimated that there are an average of 1.4 San Francisco workers in each San Francisco household that contains Downtown workers./12/ Therefore, the project would directly result in 95 to 190 households moving into San Francisco. Because the existing buildings at the site are now mostly vacant, the employment impact of the project could, alternatively, be considered to be the entire 1,060 jobs that would be accommodated in the project. Under this assumption, the number of households that would move into the City as a result of the project would be between 115 and 225.

The estimates above are of those workers who would live in San Francisco only because of the new jobs due directly to the project. Without these new jobs they would not live in San Francisco. The remaining 70 to 85% of the 890 workers would either be people who live outside San Francisco and choose not to move into the City, or people who already live in San Francisco before getting their jobs.

Table 10A shows the estimated ability of potential movers to buy a home in San Francisco. Purchasing ability depends primarily on household income and

the equity a household has in a previously-owned home. To determine equity, potential movers are assumed to have home ownership characteristics (before possibly moving into San Francisco) typical of all Bay Area households that live outside San Francisco. The income characteristics are assumed to be typical of all households with downtown workers because the pool of potential movers is composed both of households that eventually move into San Francisco as well as those that continue to live outside San Francisco. Because those households that move into the City might not be representative of all households in this pool (they might, instead, be concentrated either among those with a greater or a lesser ability to buy a home), Table 10A may not accurately represent the prices of housing that will be demanded by those who actually do move to the City. If Table 10A does represent the purchasing ability of those who move to San Francisco, roughly half of them would be expected to either rent or purchase homes priced under $100,000.

TABLE 10A: ESTIMATED PRICES OF HOMES THAT WORKER HOUSEHOLDS LIVING OUTSIDE SAN FRANCISCO CAN AFFORD TO BUY

Price	Percent of Worker Households That Could Afford to Buy Such a Home
$175,000	5
150,000	15
125,000	35
100,000	50
75,000	60

SOURCE: Recht, Hausrath & Associates; see Note 13.

To the extent the City's housing stock is not expanded at prices affordable to the movers and in sufficient numbers to accommodate them, these workers who move into San Francisco would compete with current residents and others for the available stock of housing. In the process, prices and rents would, in theory, rise more than they otherwise would have. As a result, some renters might not be able to afford the higher rents and would be forced to move. Homeowners would not necessarily be displaced because increased housing prices would not affect their mortgage payments.

If the housing stock is not expanded to accommodate the needs of the project's employees who move into San Francisco, the amount by which housing prices would rise because of the demand of the project's employees is difficult to determine. Past experience, however, offers some indication of the magnitude of the effect that an imbalance between employment growth and housing unit growth has on housing price increases. Between 1975 and 1979 San Francisco housing prices increased an average of 21% per year. In the remainder of the Bay Area, where there was a generally greater balance between employment growth and housing unit growth, prices increased about 18% per year. Thus, many factors besides job growth caused housing prices to rise both in San Francisco and in the remainder of the Bay Area. Most of the increase in San Francisco housing prices probably would have occurred even if there had been less employment growth or more construction of new housing. Therefore, providing housing to satisfy the demand of new downtown employees would reduce the rate of housing price increase slightly from what it otherwise would be, but it would not stop housing prices from rising.

Additional housing demand would be generated by people who hold the secondary jobs created by the expenditures of new San Francisco businesses and employees as a result of the project. Though there would be an impact on housing as a result of the secondary employment created by the project, there are not sufficiently accurate data to make a statistically meaningful estimate of the impact. The difficulty is estimating the distribution of regional secondary employment between San Francisco and the remainder of the Bay Area. Even when the number of new jobs in San Francisco is known, the possible housing impact spans a wide range. When coupled with the rough nature of the estimate of the distribution of secondary employment between San Francisco and the remainder of the Bay Area, the resulting estimate of the secondary housing impact would not be reliable.

FISCAL FACTORS

Revenues/14/

The project would have an assessed value in 1982-83 of approximately $6,438,000./15/ Revenue from the $4 non-bond property tax rate would be about $257,500. The revenues would be distributed as follows:

Agency	Revenues
City and County of San Francisco (General Fund)	$225,100
Open Space	6,500
County Superintendent of Schools	300
San Francisco Unified School District	19,800
San Francisco Community College District	3,700
Bay Area Air Quality Management District	500
BART	1,600
TOTAL	$257,500

Source: San Francisco Controller's Office

The building would also generate property tax revenues to retire bonded indebtedness. The exact tax rate at which these revenues would be generated in 1982-83 will depend on the amount of principal and interest payments due in that year and the total assessed value of property in San Francisco. The rate in 1980-81 is $0.92 per hundred dollars of assessed value. If that were the rate in 1982-83, revenues from the building would be $62,400.

Payroll taxes would be paid on the earnings of about 800 of the 1,060 employees in the project. The remainder would be exempt from the tax either because they would work for banks or insurance companies, which are not required to pay payroll taxes, because they would work for small, retail

tenants with tax liability less than $500, or because they would be owners of businesses./16/

Assuming that wages increase 8% per year between 1979-80 and 1982-83, the average earnings of office workers in 1982-83 would be $29,500. Payroll tax revenues would therefore be $259,600./17/

Taxable sales per employee would be $1,287 per year in 1982-83, assuming an average annual increase of 8% from 1979-80. Sales tax revenues allocated to the City would be about $13,600./18/

Sales tax revenues generated by the 1/2% BART sales tax would be about $6,800. Of this total, BART would get $5,100 directly, and the remaining $1,700 would be distributed by the Metropolitan Transportation Commission among BART, Muni and AC Transit.

It is estimated that the project would generate $49,000 in franchise tax revenues in 1982-83 (includes water, PG&E and telephone taxes)./19/ Sewer fees do not accrue to the City's General Fund, but are used directly to finance the Clean Water Program.

The owners of the project would pay a tax of 0.22% on their rental income. Based on total receipts from rents of $7,185,000 in 1982-83 (assuming full occupancy), tax revenues would be $15,800./20/

Revenues from the non-BART sales tax, payroll tax, utility users' tax, gross receipts tax, and non-bond property tax for the City and County of San Francisco would total about $563,100 from the project in 1982-83. This revenue would go into the City's General Fund.

The General Fund revenues from the project of $563,100 in 1982-83 would equal $2.21 per net sq. ft. of building space. If the old buildings were left standing, they would generate approximately $85,300 in General Fund revenues in 1982-83, or $1.70 per sq. ft. This sum includes $40,900 in payroll tax revenue, $8,100 in utility users' tax revenue, and $1,400 in gross receipts tax revenue./21/

The net increase in revenues to the General Fund that would result from this project in 1982-83 would be $477,800. Revenues per net sq. ft. would increase 30% over what they would be if the old buildings are left standing. (The per sq. ft. estimates allow for comparison of different-sized buildings and for relating revenues to service units provided.)

These revenue estimates are based on tax rates and fees in effect in early 1980. Estimates of receipts from the payroll tax and gross receipts tax would increase by about 36% (both for the existing buildings and the project) if the Mayor's Revenue Package, approved by the San Francisco voters in November 1980, is fully implemented.

Costs

Police, Fire and General Government

It is difficult to generalize about how costs for given levels of services would differ between the project and the existing uses on the site. Most available information suggests, however, that overall costs per unit of service provided (per sq. ft. or per employee) to the new building would be lower than for the existing building. In examining government services provided directly to office buildings, a study prepared by the San Francisco Planning and Urban Renewal Association (SPUR) found that costs would grow more slowly than office space. If office space grew 60%, the SPUR study estimated that police costs would grow 28% and fire costs 1%./22/

Discussions with service agency personnel regarding capacity and ability to provide services to the project indicate that existing facilities, equipment, and labor could serve the larger building proposed for the site without increases in manpower or equipment (see Section IV.G., Community Services and Utilities, p. 120). Similar findings have been presented in other EIRs. These discussions do not indicate that thresholds for increasing costs per unit of service would be reached.

Thus, total costs for servicing the site would increase because of the increase in floor space and employment. Costs per unit of service, however, would not increase and may decline.

Muni

The City's general fund provides a subsidy to the Municipal Railway's operating budget. The subsidy covers the difference between Muni's costs and the revenue Muni receives from fares and from the federal and state governments. This subsidy represents the cost of Muni to the City.

The average operating cost to Muni of providing service to one rider will be about $0.86 in 1980-81./23/ It is likely that the cost of providing service to new riders downtown would differ from this $0.86 average, but data to quantify that difference are unavailable. Therefore, the following subsidy estimate is based on an operating cost to Muni of $0.86 per ride (see Appendix C, p. 289).

Assuming that all daily Muni commuters employed at the project would buy a Fast Pass, the general fund subsidy to Muni's operating budget would be about $0.29 per ride./23/ It is estimated that about 26% of all workers at the project would ride Muni./24/ The project would, therefore, create the need for a general fund subsidy to Muni of $37,400 at 1980-81 costs./25/ This would represent an increase of about $31,000 from the present estimated deficit of about $6,000.

The subsidy would probably be higher in 1981-82, the first year of full project occupancy, as costs (fuel, labor, etc.) will probably rise faster than revenues from sources other than the General Fund (fares and subventions) between 1980-81 and 1981-82. (The $37,400 figure also probably understates the subsidy since the estimate that 26% of all workers ride Muni includes only those who use Muni as their primary mode of transportation, but excludes those, for example, who ride BART into the City and then transfer to Muni).

The project would also help to pay for the Muni deficit through its revenue contributions to the General Fund. In the 1980-81 budget, 79% of

discretionary General Fund revenues were allocated to Muni. Seven percent of the General Fund revenues the project is estimated to generate in 1982-83 is $39,400. However, as there is no way to determine how General Fund revenues will be distributed in 1982-83, nor any way of determining where spending would be increased as a result of the new revenues from the project, it may be inappropriate to compare directly the $37,400 General Fund costs to the $39,400 in General Fund revenues.

If the Mayor's proposed Transit Impact Development Fee is fully implemented and the project pays the fee, revenues from the fee would improve the project's fiscal impact on Muni. As formulated for consideration by the Board of Supervisors, this fee would apply to new downtown development. It would be assessed at a rate not to exceed $5.00 per sq. ft., the exact fee schedule to be determined by the Public Utilities Commission. The proceeds from the fee would be put in trust, and the earnings from it would be used solely to pay for the capital, operations, and maintenance costs of providing Muni Service downtown over and above the service levels provided when the fee is first enacted./26/

Assuming, as a hypothetical example, the project is assessed the maximum of $5.00 per sq. ft., and the trust earns 8% per year, fees from the project would generate about $111,000 per year, or $0.86 per ride taken by project employees./27/

Comparison of Changes in Costs and Revenues

On a per service unit basis, the project would probably increase revenues from the site faster than it would increase costs. The project would, therefore, have a higher revenue to cost ratio than do the uses that existed on the site in early 1980, thereby improving the City's fiscal situation under the most probable circumstances (see Appendix C, p. 298). Because of the lack of necessary cost data for Muni, this conclusion is tentative./28/

Cumulative Fiscal Impact

San Francisco

The fiscal impact of new development must be analyzed within a post-Proposition 13 restructuring of the City's fiscal operations that assures a long-term balance between costs and revenues. Such a restructuring, which has yet to occur, will require revenue increases, service cuts, or both.

New office development would improve the City's fiscal situation if, after revenue and cost adjustments necessary to bring the City's finances into long-term balance have been made, new buildings generate revenues in excess of the costs they impose. Available information suggests that new downtown office development is fiscally beneficial to the City. However, due to data limitations--particularly in the crucial case of the Muni--this must remain only a tentative conclusion.

If the development does have a beneficial fiscal impact, however, the benefits may be only temporary, because in the long run, revenues from the project would increase at a slower rate than costs, due to Proposition 13 limitations on property tax increases. New construction will continue to generate large property tax increments to affected jurisdictions.

See Appendix C, beginning on p. 289, for a more thorough explanation of all of these points.

BART

Additional downtown development would probably soon require major new capital investments by BART. Increased ridership would require BART to make improvements in four areas: (1) a new facility would have to be constructed to speed turnback capability in Daly City; (2) a central train control computer capable of handling more trains than the current one would be needed; (3) a third track would be needed at the Oakland Y-intersection; and (4) new transit vehicles would be needed.

Construction of the third track began in early 1980. BART anticipates that the track and the Daly City facility will be completed by 1984 or 1985. The availability of both federal and local funds may delay the purchase of new vehicles. BART has not determined whether the increase in costs from these improvements would increase the system's after-fare deficit per rider./29/

It is estimated that 17%, or about 180 employees in the new building would ride BART to work./30/ If the deficit per rider increases only as a result of inflation, but not because of increased real costs due to transit improvements, the deficit per rider in 1982-83 would be $1.61 (assuming costs rise at the same rate as inflation). The project would, therefore, generate a deficit of $128,600. The old buildings, if they were still standing in 1982-83, would generate a deficit of $21,300. Therefore, the net increase in BART's deficit as a result of the project's construction would be $107,300./31/

If the project were to contribute to the necessity of capital improvements to BART and the cost of these capital improvements increases the deficit per rider, the net deficit caused by the project would be larger.

NOTES - Employment, Housing and Fiscal Factors

/1/ This section is based on an untitled report prepared by Recht, Hausrath and Associates, May 1980. The report is available for public review at the Office of Environmental Review, 45 Hyde St. San Francisco.

/2/ J. Peter Cahill, Cahill Construction Company, written communication, April 4, 1980.

/3/ The model is from Cooperative Extension Service, University of California, Berkeley, San Francisco Bay Area Input-Output Model 1967, 1974. The net increase in employment was converted into increased sales using data in the Technical Coefficients Table (p. 19). Increased sales by industry were derived from the Table of Direct and Indirect Requirements (p. 20) and concerted into wages with the Technical Coefficients Table. Wages were converted into employment based on relative average wages by industry for the San Francisco-Oakland SMSA (California Employment Development Department, California Employment and Payrolls, October-December 1977).

/4/ Based on occupational distribution of employment within industries for the San Francisco-Oakland SMSA in 1980 (California Employment Development Department, San Francisco-Oakland Manpower 1975-1980, February 1976.

/5/ San Francisco Bay Area Input-Output Model 1967, 1974.

/6/ Final Environmental Impact Report, Bank of America Data Center, EE 74.128, pp. 92-93.

/7/ J. Peter Cahill, Cahill Construction Company, written communication, April 4, 1980.

/8/ Final Environmental Impact Report, Bank of America Data Center, EE 74.128, pp. 94-95.

/9/ J. Peter Cahill, Cahill Contruction Company, written communication, April 4, 1980.

/10/ Bill Cumbelich, Office Building Specialist, Coldwell Banker, telephone communication, February 28, 1980.

/11/ See Appendix C, page 289, for derivation.

/12/ This estimate is derived by assuming, based on the SPUR study, that the workers who move will be roughly equally divided between married and single workers. For married workers, San Francisco workers per household were estimated based on the labor force participation rates of spouses of employed people and adjustments for unemployment and the disribution of employed San Francisco residents between jobs inside and outside San Francisco. For unmarried workers, it was assumed that half of them have another adult in their household. Using the labor force participation rates of single people, and making the same adjustments as in the case of spouses, an estimate of the number of San Francisco workers in unmarried households was derived (U.S. Department of Labor, Bureau of Labór Statistics, "Marital and Family Characteristics of the Labor Force, March 1979," Special Labor Force Report 237, January 1981; San Francisco Planning and Urban Renewal Association, Impact of Intensive High Rise Development on San Francisco, June 1975.)

/13/ The purchasing ability of workers was estimated based on the following data sources and assumptions:

- Data from the SPUR study on the marital status, occupations and incomes (adjusted to 1981) of Downtown workers;
- Data on the number of workers per household (see footnote 12 above);
- Data from the ABAG Bay Area Housing Profile on the percentage of non-San Francisco households in the Bay Area that own their house;
- Data on average Bay Area housing prices and rates of housing price increases during the 1970s;
- Assumptions about the relative likelihood of single and married workers to own a house, clerical and non-clerical workers to own a house, and clerical and non-clerical workers to be married;
- The assumption that 15% of all homeowners sell their houses each year.

Based on these assumptions, worker households were distributed according to their occupation, to whether there was another worker in the household, and whether they owned or rented. The income of each category of household was then calculated based on wage data by occupation. This resulted in worker households being distributed (as a percentage of the total) as follows:

	Income				
	$14,500	$31,400	$40,200	$48,400	$57,200
Rent	12.1%	16.4%	3.9%	4.9%	2.7%
Own	11.7%	23.6%	6.3%	11.9%	6.5%

The owners were distributed into seven categories based on how long they owned their houses. Their equity was then computed based on present and historical housing price data and the assumption they initially purchased with a mortgage for 80% of the purchase price. As a result, equities ranged from $42,000 to $100,000. The incomes and home equities of each group were then used to estimate their home buying ability. It was assumed that buyers would use all of the equity in their old home as a down payment and then borrow as much as they could with a 30-year mortgage at 15% interest. Their borrowing would be limited by lenders' requirements that mortgage payments, taxes and insurance not exceed one-third of household income. For renters, it was assumed that 10% of them could afford a down payment to buy a house. All others would continue to be renters. (San Francisco Planning and Urban Renewal Association, Impact of Intensive High Rise Development on San Francisco, June 1975; Association of Bay Area Governments, "1970-1975 San Francisco Bay Area Housing Profile," November 1977; Real Estate Research Council of Northern California, Northern California Real Estate Report, Volume 32, Number 3, October 1980.)

/14/ Revenue estimates were inflated to 1982-83 dollars on the following basis: Gas, electricity, telephone, water, and sewer costs, as well as wages, were assumed to grow at the same rate relative to the consumer price index as they had in the period 1975 to October 1979. National price data were used and wages were average weekly earnings of finance, insurance, and real estate employees. Taxable sales were assumed to grow at the rate of wages. On this basis, and assuming a 10% average annual increase in prices between 1979-80 and 1982-83, price and wage changes were estimated as follows:

Wages and taxable sales up:	8% per year
Gas prices up:	22% per year
Electricity prices up:	9% per year
Telephone charges up:	1% per year
Water and sewer charges up:	11% per year

(SOURCE: U.S. Bureau of Labor Statistics, Handbook of Labor Statistics 1978 and Monthly Labor Review, January 1980.)

/15/ Construction costs, including tenant improvements, are estimated to be $25,752,000, assuming construction begins in July 1981 (Richard F. Cahill, Cahill Construction Company, written communication, February 24, 1981). Increased valuation in 1982-83 would be 25% of that, or $6,438,000.

/16/ Banks and insurance companies would occupy about 52,000 net sq. ft. of office space (J. Peter Cahill, Cahill Construction Company, written communication, April 4, 1980). At 250 sq. ft. per employee, that amount of space would accommodate about 205 employees. Although most other tenants in the building would occupy a large amount of space (J. Peter Cahill, Cahill Construction Company, telephone communication, March 10, 1980), some small retail tenants might be exempt from the payroll tax because of a tax liability less than $500. Other exempted workers would include people who own their business. A rough estimate is that the earnings of 800 employees in the building would be subject to the payroll tax.

/17/ $29,500 x 800 employees x .011 tax rate = $259,600.

/18/ $1,287 sales x 1,060 employees x .01 tax rate = $13,642.

/19/ Revenues calculated as follows:

Water:	1,265,000 cu. ft. x $0.00414/cu. ft. x 1.23 price increase x 0.05 tax = $322
Gas:	40,000 therms x $0.48/therm x 1.49 price increase x .055 tax = $1,573
Electricity:	6,800,000 kwh x $0.06/kwh x 1.19 price increase x .055 tax = $26,704
Telephone:	285,293 sq. ft. x $1.40/sq. ft. x 1.02 price increase x .05 tax = $20,370

Sources: Prices: see Note /18/, p. 44.
Consumption of water, gas, electricity: Environmental Science Associates
Telephone use: See Note /18/, p. 44.
Price Increases: See Note /13/, above.

/20/ Gross rents in the building would be $7,185,500 (Richard F. Cahill, Cahill Construction Company, written communication, February 24, 1981).

/21/ Revenues were calculated as follows:

Non-bond property tax (Assessed value increases 2% per year and tax rate remains the same):
$897,501 x 1.0404 x 0.03497 tax rate = $32,654.

Sales tax (8% annual increase in taxable sales):
$1,287 taxable sales X 175 employees x 0.01 tax rate = $2,252.

Payroll tax (Wages go up 8% per year); this brings all 2-employee firms above the $500 tax liability level. Taxes are, therefore, paid on an additional 12 workers:
111 workers x $29,500 x 0.011 = $40,887.

Utility users' tax (price and, therefore, tax revenue increases as described in Note /13/, above):

Water:	$100 x 1.23	=	$123
Gas:	$770 x 1.49	=	$1,146
Electricity:	$2,770 x 1.19	=	$3,291
Telephone:	$3,500 x 1.02	=	$3,570

TOTAL = $8,130

Gross receipts (Annual increase in rents of 10%):
$513,000 x 1.21 x 0.22% tax = $1,366.

/22/ SPUR Report, pp. 201-202, 214, 221. See also Appendix C, p. 289 for further discussion.

/23/ See Note /21/, p. 44.

/24/ See Table 4, p. 41, and Appendix Table D-4, p. 335.

/25/ 1,060 workers x 26% ride Muni x 468 rides per year x $0.29 deficit per ride = $37,400.

/26/ As of January 7, 1981, the proposed Transit Impact Development Fee Ordinance is being reviewed by the Finance Committee of the Board of Supervisors. After reviewing the Ordinance, the Committee will hold public hearings. Depending on the outcome of those hearings, the Finance Committee may decide to either drop the proposed Ordinance or forward it to the full Board of Supervisors for consideration. San Francisco Board of Supervisors, File No. 159-80.

/27/ 277,200 sq. ft. x $5.00 per sq. ft. x 8% = $110,880;

$$\frac{\$110,880}{1,060 \text{ workers x } 26\% \text{ ride Muni x } 468 \text{ rides per year}} = \$0.86.$$

/28/ The required General Fund subsidy to Muni resulting from the existing buildings is $6,175 (see Note /22/, p. 45). Therefore, the subsidy per sq. ft. of building space is :

$$\frac{\$6,175 \text{ subsidy}}{56,000 \text{ gross sq.ft.}} = \$0.11 \text{ subsidy per gross sq. ft.}$$

The subsidy per sq. ft. in the new building, however, would be higher because in the old buildings there is one employee for every 320 sq. ft. but in the new building there would be one employee for every 262 sq. ft. Thus, the required general fund subsidy to Muni resulting from the new building would be:

$$\frac{320}{262} \times \$0.11 = \$0.13$$

For Muni costs to increase costs of the building by $0.41 per sq. ft., the subsidy to Muni per sq. ft. of building space would have to rise from $.013 to $0.54, or 415%. That would require a 415% increase in the $0.29 subsidy so that it would become $1.20. Since the average $0.29 subsidy does not cover $.57 of Muni's $0.86 per ride average operating costs, the cost per ride would have to increase to $1.77 ($1.20 + $0.57) or about double the $0.86 average cost.

/29/ Ward Belding, Senior Economic Analyst, BART, telephone communication, February 28, 1980, May 1, 1980.

/30/ See Table 4, p. 41, and Appendix Table D-4, p. 335.

/31/ The project's deficit would be: (1,060 employees x 17% ride BART x 468 rides per year x $1.61 deficit per ride) - $5,600 sales tax revenue - $1,600 property tax revenues = $128,600. The old building's deficit would be: (175 employees x 17% ride BART x 468 rides per year x $1.61 deficit per ride) - (175 employees x 0.5% sales tax x 83% (BART share of sales tax) x $1,287 taxable sales) - $227 property tax revenues = $21,300. The increase in BART's deficit would, therefore, be $128,600 - $21,300 = $107,300.

C. TRANSPORTATION, CIRCULATION AND PARKING/1/

DEMOLITION, EXCAVATION AND CONSTRUCTION

Demolition activity would generate an average of about five truck movements per hour in or out of the project site between 9:00 a.m. and 4:00 p.m. over a four and one-half month period. Excavation is expected to be minor with little or no hauling from the site. Post-excavation construction activity would require truck movements to deliver construction materials over a period of approximately seven months. The average daily number of such truck movements would be about two with a maximum of ten in any one day.

The transportation impact of the construction truck traffic would be a slight lessening of the capacities of the access streets and haul routes due to the slower movements and larger turning radii of the trucks. Haul routes would be determined at a later date in consultation with the Department of Public Works and/or the Department of Planning. The most probable haul route would include Kearny ad Clay Sts. to the Clay St. on-ramp of the Embarcadero Freeway. Any truck traffic from 7 a.m. to 9 a.m. or 4 p.m. to 6 p.m. would conflict with peak-hour traffic, particularly at freeway access points.

TRAVEL DEMAND ANALYSIS

An estimate of the amount of travel associated with the proposed project has been forecast through an aggregate travel demand modeling process using a generation/distribution/assignment model. The project has been analyzed as an attractor/generator of work and non-work related trips. The amount of travel generated by the project has been projected on the basis of the number of employees projected for the project; the distribution of the travel throughout the region has been based on residential projections provided elsewhere in this report (see Table 4, p. 41). Distribution of the travel to available modes has been made based upon a composite modal split analysis compiled from modal split data used in past environmental analyses and supplied by the Department of City Planning (see Appendix Table D-4, p. 335)./2/ The composite analysis was used in lieu of a prospective tenant travel survey, as less than 5% of the prospective tenants' employees have been identified.

Travel due to the project has been assumed to occur at the rate of 3.3 total (work + non-work) person trip ends per employee./3/ The travel has been assumed to split 70% work, 22% non-work, and 8% service related./3/ The project has been estimated to generate approximately 3,460 person trip ends (pte) per day based upon a projection of 1,060 employees (see Section IV.B., Employment, Housing and Fiscal Factors, p. 76). The travel would be 2,425 pte per day for (home to) work, 760 pte per day non-work and 275 pte per day service and other. The peak hour of project generation was assumed to be the weekday evening peak hour occurring during the peak period of 4:00-6:00 p.m. During the peak hour, 20% of the daily (24-hour) travel was assumed to occur./3/ The 24-hour travel distribution is shown in Table 11.

Service vehicle trips have been assumed to occur at the rate of 4.3 service vehicle trip ends per 100 total person trip ends generated./3/ At this rate the project would generate 150 service vehicle trip ends per weekday. Averaged over an 8-hour working day, the project would be serviced by an average of nine service vehicles per hour. Service vehicle trip ends are included in total trips given in Table 11.

Of the total 3,460 pte generated, about 1,930 trips would be by transit, 1,450 by automobile, and 70 by walking as a primary mode (see Table 11). The walk column in Table 11 shows only primary walk trips. As only 12 to 15 parking spaces would be provided on-site, almost all persons who reach the site primarily by a non-walk mode would be required to walk to and from the site.

TABLE 11: PROJECTED 24-HOUR WEEKDAY TRAVEL GENERATED BY THE PROJECT (pte)*

Area of Residence	%**	Total	Auto	Transit	Walk
North Bay	12	310	180	130	--
Peninsula	18	560	290	270	--
East Bay	30	840	340	500	--
San Francisco	40	1,750	650	1,030	70***
	100	3,460	1,460	1,930	70***

*Work and non-work person trip ends
**Recht, Haustrath and Associates estimates based on surveys of workers at four downtown office buildings (See Appendix C, p. 289).
***Approximately 70 pte would be due to persons who walk to the site without using any other form of transportation. An estimated additional 3,350 pedestrian trip ends would be made to and from the site each day by people originally using other modes of transportation.

SOURCE: TJKM, Transportation Consultants

TRAFFIC IMPACTS

Traffic impacts were analyzed at two levels. For estimation of project-generated traffic volume increases at freeway access points, conventional techniques for estimating traffic generation were used. That is, daily traffic generation was based on numbers of on-site employees, as it was assumed that as long as parking were available within convenient walking distance, most drivers would continue to drive to work. For estimation of project-generated traffic volume increases on streets immediately surrounding the project, the capacity of the on-site garage was the basis, as it was assumed that routes of drivers going to other garages would be dispersed

enough so that they would have a negligible effect on traffic volumes on the adjacent streets.

The project is proposed to have 12 to 15 off-street parking spaces. These spaces are projected to generate a maximum of approximately 170 vehicle trip ends to and from the site each day.

The 24-hour automobile travel generated by the project was calculated based upon an average vehicle occupancy of 1.4 persons per car. Division of person trip ends in autos by the vehicle occupancy factor gives total auto trip ends. For each of the seven geographic areas of trip origin considered in Appendix Table D-4, p. 335, an average trip length was estimated and the vehicle miles traveled were calculated. The total vehicle miles of new travel are estimated to be 13,800 vehicle-miles per day, with an average trip length of 13.2 miles one way.

Table 12 shows 1980 base level traffic volumes. In assessing the new traffic which would be generated by the project in relation to other traffic expected to be on the streets in 1983, the expected first full year of project occupancy, an expansion factor of 1.8% per year was used to increase the known 1980 traffic volumes to expected 1983 base levels, exclusive of project-induced changes. This annual expansion rate was used by the San Francisco Department of Public Works in its Downtown Parking and Traffic Survey (DPATS) in 1970, and is the latest available documented expansion factor for San Francisco.

The 1983 projected base volumes on streets near the proposed project, the increases in traffic volumes estimated to be caused by the proposed project, and the percent of the peak-hour increase over the 1983 base level which would be caused by the project are shown in Table 13, p. 97. The maximum increase in peak-hour traffic would be 3%. As the transportation analysis can be considered accurate only within 10%, this would not be considered to be a statistically significant change. The effect of the project garage-generated traffic on the levels of operation of adjacent intersections during the peak-hour in terms of volume-to-capacity ratios is shown in Table 14, p. 98. The projected project impact at the four intersections would be a result of

TABLE 12: ESTIMATED VEHICLE TRAFFIC VOLUMES IN THE VICINITY OF THE PROJECT SITE IN 1980*

Street	Section	24 Hours	Peak Hour**	Maximum 8 Hours
Montgomery	Bush to Sutter	11,080	810	6,320
Bush	Montgomery to Kearny	13,450	990	7,665
Kearny	Sutter to Bush	11,980	1,080	6,880
Sutter	Montgomery to Kearny	9,180	810	5,230
Fourth	Folsom to Harrison	18,500	1,840	10,545
Beale	Market to Mission	8,230	1,065	4,690
Main	Mission to Market	21,520	1,700	12,265
Clay	Front to Davis	27,860	2,040	15,380
Washington	Off-ramp to Battery	19,330	1,720	11,020

*The traffic volume data shown are derived from historical data for 1976 and 1978 obtained from the San Francisco Department of Public Works, Bureau of Traffic Engineering. Estimates of 1980 traffic volumes are based on manual intersection count data collected on February 25, 27, and 28, 1980 and on historical data for 1976 and 1978.

**Peak hour is the single peak hour during the peak period between 4:00 and 6:00 p.m., with the exception of Washington and Main Sts. where the peak hour is the single peak hour between 7:00 and 9:00 a.m.

SOURCE: TJKM, Transportation Consultants

traffic using a 12 to 15-space parking facility and by service vehicle traffic. The garage has been analyzed assuming only short-term use of 15 spaces with a worst-case condition assuming all 15 spaces empty onto the streets during the p.m. peak hour. As indicated in Table 14, p. 98, traffic attributable to the 15 spaces would have no appreciable effect on neighboring intersections.

PARKING IMPACTS

The daily parking demand which would be generated by the project is projected to be 387 parking spaces. The parking demand has been calculated based on the number of auto driver work and non-work trips projected./4/ The average percentage of non-work trips for multi-tenanted buildings is estimated to be

TABLE 13: PROJECTED VEHICLE VOLUMES IN THE VICINITY OF THE PROJECT SITE IN 1983

Street*	1983 Base			1983 Base + Project			Percent of Increase Per Peak Hour Due to Project***
	24-Hour	Peak Hour**	Peak 8-Hour	24-Hour	Peak Hour**	Peak 8-Hour	
Montgomery	11,690	855	6,670	11,775	870	6,720	2
Bush	14,190	1,045	8,090	14,275	1,060	8,140	1
Kearny	12,640	1,140	7,205	12,725	1,155	7,250	1
Sutter	9,685	855	4,960	9,770	870	5,010	2
Fourth	14,520	1,940	11,125	14,800	2,000	11,290	3
Beale	8,680	1,120	4,950	8,780	1,140	5,007	2
Main	22,700	1,790	12,940	22,800	1,810	13,000	1
Clay	29,390	2,150	16,750	29,420	2,160	16,770	0.3
Washington	20,390	1,810	11,625	20,420	1,820	11,640	0.3

*See Table 12, p. 96, for section of street considered.
**The single peak hour between 4:00 and 6:00 p.m. except for Washington and Main Sts. where the peak hour is between 7:00 and 9:00 a.m.
***Percent increase over the 1983 base traffic volume

SOURCE: TJKM, Transportation Consultants

TABLE 14: PROJECTED PEAK-HOUR VOLUME-TO-CAPACITY RATIOS* AT INTERSECTIONS IN THE VICINITY OF THE PROJECT SITE IN 1983

Intersection	1983 Base		1983 Base + Project	
	V/C	Level of Service*	V/C	Level of Service*
Montgomery and Bush	0.88	D	0.88	D
Bush and Kearny	0.69	B	0.69	B
Kearny and Sutter	0.62	B	0.62	B
Sutter and Montgomery	0.74	C	0.75	C

*See Appendix Table D-1, p. 332, for definition of Levels of Service and lane capacities at each Level of Service.

SOURCE: TJKM, Transportation Consultants

22%, as assumed in the travel demand analysis (see Appendix Table D-4, p. 335). The average length of stay for non-work trips is estimated to be 1.4 hours./3/ To estimate the work parking demand, all of the auto driver work trips (70%) were assumed to generate demand for one parking space per trip or 367 spaces. The non-work parking demand was calculated by dividing the non-work auto driver trips (115) by a turnover factor based upon the average length of stay. The turnover factor was calculated by dividing an 8-hour working day by the average length of stay of 1.4 hours to give a factor of 5.7. Thus the non-work parking demand was calculated to be 20 spaces and the total demand is estimated to be 387 spaces. Other trips, primarily by service vehicles, would account for approximately 8% of total driver work trips. As these vehicles would use street-side or on-site loading areas, they are not included in parking demand analysis. The project would provide 12 to 15 off-street parking spaces leaving a deficit of about 375 project-related spaces. If all of the project-provided parking were for short-term use, the short-term demand would exceed the supply by five spaces. Parkers would be expected to use other facilities in the area, thus further decreasing the availability of parking in the downtown area (see Figure 17, p. 48, and Cumulative Parking Impacts, p. 105).

TRANSIT IMPACTS

For the analysis of the transit impacts from the project, afternoon peak-hour ridership was projected from 1980 to 1983 base levels by use of a growth factor calculated for each transit agency (see Appendix Table D-5, p. 338). The growth factors were assumed to reflect total projected annual downtown growth, except the proposed project, in the three-year period between 1980 and 1983. The ridership from the project was added to the 1983 base ridership thus projected and an analysis of the demand-to-capacity ratios was made including known planned expansions of those systems planning expansions before 1983. The planned capacity increases were assumed to be 7,390 persons per hour total for Muni; and 1,620 persons per hour (1,080 seats per hour) total for BART. None of the capacities for A-C Transit, Southern Pacific or SamTrans were increased, as no documented projected increases were available for these systems. Ridership and capacity data for the N-Judah Muni line are for the surface streetcar rather than for the Metro car, as adequate data for Metro service are yet unavailable.

Table 15 shows the projected ridership and demand-to-capacity ratios for 1983 conditions. As shown, the project increase during the p.m. peak hour would not increase the transit loading by more than 1% on any system. This would not be a statistically significant change.

PEDESTRIAN IMPACTS

Increases in pedestrian activity are projected to occur on the sidewalks surrounding the project site as a result of the project. The impact of such pedestrian increases would be an expansion of peak-hour sidewalk volumes by up to approximately 11% (compare Table 16, p. 101 with Table 17, p. 102). This would increase the sidewalk flows by up to three pedestrians per foot of sidewalk width per minute. The project increases would not cause a change in the flow regime on the sidewalks abutting the project (see Appendix Table D-3, p. 334, for definitions of pedestrian flow regimen). Peak-hour crosswalk volumes
would be increased similarly at the intersections of Sutter and Montgomery Sts. and Bush and Montgomery Sts. Increased use of Trinity St. for pedestrian

TABLE 15: PROJECTED PEAK OUTBOUND TRANSIT CHARACTERISTICS IN 1983, BASED UPON CALCULATED GROWTH FACTORS

	1983 Base**		1983 Base + Project		
Agency*	Ridership	% Occupancy***	Ridership	% Occupancy	% Increase+
MUNI*	21,340	71	21,495	71	0.7
BART					
Transbay	9,525	82	9,570	82	0.5
Westbay	7,140	72	7,162	72	0.3
A-C Transit*	8,590	70	8,630	70	0.4
SamTrans*	1,050	108	1,050*	108	0.1
SPRR	6,265	57	6,290	587	0.4
Golden Gate					
Motor Coach	6,045	89	6,060	90	0.3
Ferry	1,130	55	1,135	55	0.3
Harbor Carrier	630	90	630	90	0.0

*See Appendix Table D-5, p. 338, for routes included in projections.
**Base expanded from estimated 1980 ridership based on calculated growth factors (see Appendix D, p. 330)
***Percent of total capacity occupied
+Percent increase in projected 1983 Base ridership due to project

SOURCE: TJKM, Transportation Consultants

travel has been assumed, as access to the project would be provided on Trinity St.

INTERNAL ON-SITE CIRCULATION AND STREET ACCESS

Access to the proposed basement parking and service areas would be provided to and from Bush St. via a ramp through a portion of the ground floor and basement of the adjacent Alexander Building (see Figure 4, p. 13). Two loading spaces, with direct access to the proposed freight elevator, would be provided in the basement of the proposed tower. Two additional surface

TABLE 16: ESTIMATED PEAK 15-MINUTE PEDESTRIAN VOLUMES IN 1980
(Project Side of Street)

Sidewalk	Effective Width*	Volume** P.M.	Rate*** P.M.	Pedestrian Flow Regime+ P.M.
Bush St.	10.5 ft.	270	1.7	Unimpeded
Sutter St.	10.5 ft.	380	2.4	Impeded
Montgomery	9 ft.	690	5.1	Impeded

*Effective widths take account of poles, planter boxes, people standing at store windows, etc.
**Pedestrians per 15 minutes
***Pedestrians per minute per foot of sidewalk width
+See Appendix D, Table D-3, p. 334 for definitions and volume criteria.

SOURCE: TJKM, Transportation Consultants

loading spaces would be provided on the present site of 25 Trinity St., opposite the rear of the project tower. Access to these spaces would be from Bush St. with egress to Sutter St. (see Figure 7, p. 17).

The proposed on-site vehicular circulation plan poses potential vehicle-pedestrian conflicts at site access and egress points on Bush and Sutter Sts. The narrow width of the site, and the central location of the building's service core, also pose maneuvering problems for larger service vehicles using the basement loading areas. These vehicles could be accommodated, however, by the proposed surface loading area on Trinity St. and by existing loading zones on Montgomery St. As this frontage is currently serving approximately 15 vehicles per hour, service traffic due to the project (approximately 8 vehicles per hour) could be accommodated without necessitating double parking on Montgomery St. Small service vehicles, such as vans and station wagons, could also use the basement parking area for short-term use.

TABLE 17: PROJECTED PEAK 15-MINUTE PEDESTRIAN VOLUMES IN 1983
(Project Side of Street)

Sidewalk	Effective Width*	Volume** P.M.	Rate*** P.M.	Pedestrian Flow Regime+ P.M.
Bush Street	10.5 ft.	280	1.8	Unimpeded
Sutter Street	10.5 ft.	400	2.6	Impeded
Montgomery Street	9 ft.	770	5.7	Impeded

*Effective widths take account of poles, planter boxes, people standing at store windows, etc.
**Pedestrians per 15 minutes
***Pedestrians per minute per foot of sidewalk width
+See Appendix Table D-3, p. 334, for definitions and volume criteria.

SOURCE: TJKM, Transportation Consultants

CUMULATIVE TRAFFIC IMPACTS

As downtown San Francisco is currently experiencing an increase in office building floor area, the Department of City Planning has initiated an analysis of the cumulative traffic impact of 20 buildings in the vicinity of the proposed project (see Appendix D, p. 330) which have been completed since 1976, which are approved but not yet completed, or which are now under environmental review.

The five streets which serve the project as feeders to or from freeway ramps -- Main, Beale, Clay, Washington and Fourth Sts. -- are points of automobile traffic concentration in the downtown area. They are assumed to determine the "worst case" or greatest traffic impacts. The projected traffic volumes on these streets are shown in Table 18. Impacts on other streets would be less, as traffic on them would be more dispersed.

About 50% of the generated traffic assigned to the freeway system goes to the East Bay via the Bay Bridge, 35% goes to the Peninsula, and 15% goes to southeast and southwest San Francisco. The total cumulative addition from

TABLE 18: PROJECTED CUMULATIVE TRAFFIC VOLUMES IN 1983

Street	1983 Base* Vehicle Volumes		1983 Base + Cumulative Vehicle Volumes		1983 Base + Cumulative % Increase***		1983 Base + Cumulative + Project Vehicle Volumes		1983 Base + Cumulative + Project % Increase+	
	24-Hour	Peak Hour**	24-Hour	Peak Hour	24-Hour	Peak Hour	24-Hour	Peak Hour	24-Hour	Peak Hour
Main	14,630	1,665	20,652	3,281	41%	103%	20,661	3,301	0.5%	0.6%
Beale	8,575	1,105	14,897	2,849	74%	158%	14,998	2,869	0.7%	0.7%
Clay	31,860	2,500	35,790	3,440	12%	38%	35,819	3,446	0.1%	0.2%
Washington	17,020	2,150	21,050	3,050	24%	42%	21,079	3,056	0.1%	0.2%
Fourth	22,910	2,270	29,350	3,773	23%	66%	29,634	3,830	1.0%	1.5%

*Base = Expanded 1976 vehicle volumes
**Peak hour for Beale, Clay and Fourth Sts. is between 4:00 and 6:00 p.m.; peak hour for Main and Washington Sts. is between 7:00 and 9:00 a.m.
***Percent increase in traffic volumes from 1983 Base + Cumulative Traffic over 1983 Base Traffic
+ Percent increase in traffic volumes from 1983 Base + cumulative + Project traffic over 1983 Base + Cumulative Traffic

SOURCE: TJKM, Transportation Consultants

three freeway access points -- Beale, Clay, Fourth Sts. -- to p.m. peak-hour Bay Bridge traffic would be about 2,100 vehicles. The ultimate effect of such an addition would be a spreading of the p.m. peak-hour bridge congestion over a longer period. The effect during the a.m. peak would be to lengthen the westbound queues at the toll plaza and at the metering signals just west of the toll plaza.

The percentage increase caused by the proposed project above the cumulative traffic is estimated to be not more than 2% on any of the freeway approach streets. The total addition to Bay Bridge traffic caused by the project would be about 40 vehicles in the peak p.m. hour. The percent increase attributable to the project over the cumulative is not statistically significant; the percent increase of the cumulative condition over the base is statistically significant.

The cumulative impact on peak-hour intersection capacities is shown in Table 19. The capacity analysis used the critical lane method (see Appendix D, p. 330). Cumulative traffic would decrease the calculated vehicular Level of Service at two (Washington at Battery and Fourth at Harrison) of the five intersections from C or better to D; and at Main and Mission, and Beale and Mission from C to F. Levels of Service on Clay and Front Sts. would be reduced from C to E. The further impact of the project beyond the cumulative impacts would be an imperceptible lessening of the level of service of traffic operation on the street system. As shown in Table 19, the level of operation would not be decreased a full vehicular Level of Service below the cumulative conditions by the project traffic (see Appendix Table D-1, p. 332, for Level of Service definitions). An effect of increased congestion on the above street would be a redistribution of travel patterns to less traveled routes.

TABLE 19: PROJECTED CUMULATIVE PEAK-HOUR* VOLUME-TO-CAPACITY RATIOS** IN 1983

Intersection	1980 Existing	1983 Base	1983 Base + A***	1983 Base + A + B+
Clay and Front	0.64	0.84	0.95	0.95
Battery and Washington	0.62	0.71	0.88	0.88
Mission and Beale	0.76	0.80	1.03	1.03
Mission and Main	0.87	0.90	1.11	1.12
Fourth and Harrison	0.57	0.64	0.84	0.85

*Peak hour for Beale and Clay Sts. is during the p.m. peak period; peak hour for Main and Washington Sts. is during the a.m. peak period
**This is the existing or projected volume/service volume ratio at Level of Service E (see Appendix, Table D-1, p. 332 for definitions of Levels of Service).
***A = Cumulative buildings addition
+B = Proposed project addition

SOURCE: TJKM, Transportation Consultants

CUMULATIVE PARKING IMPACTS

The projected parking demand for each of the projects included in the cumulative traffic analysis and the projected loss or gain of parking space between 1980 and 1983 in the area within three to four blocks of the site (see Figure 17, p. 48), were compiled to produce the projected demands and deficits shown in Table 20.

It is projected that the cumulative projects would produce a parking deficit of 2,650 spaces in the survey area in 1983, and that with the proposed project the cumulative deficit would rise to approximately 3,025, an increase of 14%. This would be a statistically significant change.

The projected cumulative deficit in the years beyond 1983 would be aggravated by further loss of parking supply in the Yerba Buena Center Redevelopment Area. This deficit could be remedied in several ways. Some drivers could park at greater distances, west toward Van Ness Ave., south beyond Mission St., east beyond Battery and First Sts., or north beyond

TABLE 20: PROJECTED CUMULATIVE OFF-STREET PARKING DEMAND IN 1983*

Cumulative	Cumulative**	Cumulative Plus Project**
Available Spaces in 1980	1,060 spaces	1,060 spaces
Net Gain (loss) of 1980 Spaces	(510) spaces	(495) spaces
Available Spaces in 1983	550 spaces	565 spaces
Projected Parking Demand	3,200 spaces	3,590 spaces
Net Parking Deficit	2,650 spaces	3,025 spaces

*In study area (see Figure 17, p. 48)
**Not counting that from growth due to projects other than those considered in the cumulative traffic analysis.

SOURCE: TJKM, Transportation Consultants

California St., then either walk or use Muni to reach the project site. In the years following 1983, as further office expansion occurs, particularly in the Yerba Buena Center area, this option would become less feasible unless a large expansion of parking supply were to occur in the Downtown and South-of-Market areas.

Parking deficits could encourage the use of car pools and van pools, creation of satellite parking facilities in outlying neighborhoods, with shuttle or expanded Muni service to the downtown area, increased use of on-street parking in the neighborhoods, and increased use of transit directly from home (San Francisco) or from suburban centers (East Bay, North Bay, Peninsula). Peninsula residents, for example, could find Southern Pacific commuter trains more attractive if they could get no closer to downtown with their cars than the train terminal at Fourth and Townsend Sts. Future increases in auto fuel costs may also contribute to modal shifts from autos to transit. All transit options would add to the burdens of the transit system, particularly Muni.

CUMULATIVE TRANSIT IMPACTS

An analysis was made, parallel to the cumulative parking and traffic analyses, of the cumulative transit impacts due to development in downtown San Francisco (see Appendix D, p. 330). The transit analysis covered a one-hour period during which the demand on individual routes varied from less than seated capacity to total capacity. Analysis of the transit data allows a reasonable assumption that for short periods of time (15 to 30 minutes) certain routes experience loadings nearer to 100% of total capacity than the loadings shown in Table 21. The loadings shown are the results of averaging ridership of full vehicles with partially empty vehicles, thus equalizing the loads over the one-hour period. As the cumulative demand increases, the duration of peak loadings increases, thus forcing a spreading of peak-of-the-peak conditions. It is not possible to quantify the extent to which peak-of-the-peak conditions would be increased on each route because the bunching of transit vehicles varies from day to day.

● To the extent that future available auto parking becomes more removed from the Downtown area, the number of auto commuters who use transit as a secondary mode of transportation may increase from levels projected in Table 21, thus contributing further to transit crowding.

The routes most likely to be overloaded for short periods of time are the Muni lines, the Golden Gate Transit motor coaches, and BART transbay trains (see Appendix Table D-5, p. 338, for routes included in projections).

The only agency projected to operate at greater than 90% of total capacity is SamTrans. The disproportionate apparent overrun of the SamTrans capacity is due to the newness of the service, resulting in a lack of historical growth data which could be used for accurate growth projections./5/ The percent increase from the project over the cumulative volumes would not be statistically significant. However, the cumulative increases over the base volumes would be statistically significant for all but Harbor Carriers.

NOTES - Transportation, Circulation and Parking

/1/ This section is based upon a study prepared by TJKM, Transportation Consultants, entitled "Transportation Impact Study for 101 Montgomery Street Building," April 1980. A copy of this document is available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, San Francisco, and is hereby incorporated by reference into this EIR.

TABLE 21: PROJECTED PEAK OUTBOUND TRANSIT CHARACTERISTICS IN 1983, BASED ON CUMULATIVE EIR DATA

Agency*	1983 Base**		1983 Base + Cumulative			1983 Base + Cumulative + Project		
	Ridership	% Occupancy***	Ridership	% Occupancy***	% Increase+	Ridership	% Occupancy***	% Increase++
MUNI*	18,520	62%	25,821	86%	39%	25,980	86%	0.6%
BART								
Transbay	7,740	66%	9,815	84%	27%	9,860	85%	0.5%
Westbay	6,005	60%	7,290	73%	21%	7,310	74%	0.3%
A-C Transit*	8,590	70%	9,940	80%	16%	9,980	81%	0.4%
SamTrans*+++	625	64%	1,860	191%	197%	1,860	191%	0.1%
SPRR	5,435	49%	6,100	55%	12%	6,120	56%	0.4%
Golden Gate								
Motor Coach	4,760	70%	5,660	84%	19%	5,675	84%	0.3%
Ferry	930	45%	1,160	56%	25%	1,160	56%	0.3%
Harbor Carriers	520	75%	550	78%	5%	550	70%	0.0

*See Appendix Table D-5, p. 338, for routes included in projections.
**Base is expanded from 1978 ridership (see Appendix D, p. 330, for methodology).
***Percent of total capacity occupied.
+Percent increase in ridership of 1983 Base + Cumulative over 1983 Base.
++Percent increase in ridership of 1983 Base + Cumulative + Project over 1983 Base + Cumulative
+++See Note/5/.

SOURCE: TJKM, Transportation Consultants

/2/ Summary of travel assignments is Attachment 2 to "Guidelines for Environmental Impact Review, Transportation Impacts", San Francisco Department of City Planning (undated).

/3/ The trip generation and trip purpose data is from a federally sponsored research document: National Cooperative Highway Research Program (NCHRP), 1969, Urban Travel Patterns for Hospitals, Universities, Office Buildings, and Capitols, Rept. No. 62.

/4/ To calculate auto driver trips from total person trip ends in autos (see Table 11, p. 94) use the following equation:

$$\frac{\text{total person trip ends in autos}}{1.4 \text{ persons/auto} \times 2 \text{ trip ends/trip}} = \text{auto driver trips}$$

/5/ SamTrans service to downtown San Francisco was initiated in July of 1977 and as such does not lend itself to refined growth projections. The mainline routes to downtown San Francisco were grouped by SamTrans with a block of routes for projection purposes; hence, the overall projections for the group of routes do not exactly reflect the ridership changes on a single route. The method of increasing the capacity of the transit systems for this 1983 analysis considered only definite capacity increases (i.e., those that are well documented). SamTrans is currently operating at approximately 90% of total capacity on the mainline routes, clearly covering the demand. The analysis of the 1983 Base + Cumulative occupancy added all of the cumulative transit trips in a lump sum, which had the effect of tripling the existing ridership and created an apparent, artificial capacity shortage. As the cumulative projects would be spread over time, the increases in demand would be gradual and SamTrans would be expected to increase capacity to meet increased demand on a gradual basis.

D. AIR QUALITY

Construction Effects

Demolition, earthmoving and construction activities would affect local air quality, especially particulate (dust) concentrations, for approximately one year. In contrast to gaseous pollutants and to small-size particulate from combustion, a large fraction of particulate from construction settles out of the atmosphere rapidly with increasing distance from the source and generally does not penetrate to the lungs. It has been estimated that the small-size (less than 30 microns in diameter) fraction of construction particulate, which may remain suspended indefinitely and is a health hazard, is generated at the rate of 1.2 tons per acre per month of activity./1/ This would include emissions from excavation and earthmoving, traffic on unpaved surfaces, wind

erosion and construction of structures. Without mitigation, this rate could result in a worst-case 24-hour concentration of approximately 5,500 micrograms per cubic meter (ug/m^3) at and adjacent to the site during the excavation and earthmoving phases. This would be 55 times the State 24-hour standard of 100 ug/m^3 and would be typical of construction projects of similar magnitude.

Long-Term Effects

Long-term air quality impacts would result primarily from increased vehicular emissions. Combustion of natural gas for space and water heating would also generate small amounts of pollutants (primarily nitrogen oxides) relative to vehicular traffic. Daily emissions of five pollutants resulting in 1983 from all project-generated vehicular traffic and from stationary natural gas combustion were calculated and are compared with projected regional emissions in Table 22.

TABLE 22: PROJECTED DAILY PROJECT-GENERATED EMISSIONS IN 1983 (tons/day)

	Vehicular Fuel Combustion*	Natural Gas Combustion**	Total Project Emissions	1985 Estimated Regional Emissions***
Carbon Monoxide	0.352	0.039	0.391	3,884
Hydrocarbons	0.030	0.016	0.046	842
Nitrogen Oxides	0.042	0.236	0.278	700
Sulfur Oxides	0.004	0.001	0.005	392
Particulate	0.006	0.020	0.026	187

*BAAQMD, 1979, EMFAC-5 Vehicular Emission Factors
**U.S. EPA, 1977, Compilation of Air Pollutant Emission Factors, AP-42, Third Edition, p. 1.4-2.
***Association of Bay Area Governments (ABAG), BAAQMD, MTC, 1979, 1979 Bay Area Air Quality Plan, pp. 62-64. The region is the nine-County Bay Area Air Quality Management District.

SOURCE: Environmental Science Associates, Inc.

After full occupancy of the completed project, private motor vehicles would be used for about 30% of the person trips generated by the facility. All of the affected streets would experience traffic increases of less than 3% (see

Section IV.C, Transportation, Circulation and Parking, p. 95). The largest increase in traffic, and in roadside carbon monoxide (CO) concentrations, due to the project would occur on Fourth St. Current 1980 CO concentrations on Fourth St. between Folsom and Harrison Sts. are estimated to be approximately 24.6 parts per million (ppm) and 10.4 ppm during the peak hour and peak eight hours, respectively./2/ In 1983, without project implementation, CO concentrations on Fourth St. are projected to be 20.0 ppm and 8.6 ppm during the peak hour and peak eight hours, respectively, or 57% and 96% of the federal CO standards (35 ppm for one hour, 9 ppm for eight hours). With the addition of project-generated traffic, the peak hour concentration would increase to 20.2 ppm or 58% of the standard; the 8-hour concentration would remain essentially unchanged at 96% of the standard.

Clay St. between Front and Davis Sts. has in 1980, and is expected to have in 1983, the highest traffic volumes and roadside CO concentrations in the area. 1980 concentrations are estimated to be 25.7 ppm and 11.5 ppm during the peak hour and peak eight hours, respectively./2/ In 1983, without project implementation, these concentrations are projected to be 20.9 ppm and 9.4 ppm, respectively, or 60% and 104% of the federal CO standards. These concentrations are not projected to change measurably with the addition of project-generated traffic.

Cumulative Air Quality Effects

Projections of the cumulative effect of recently proposed major construction on CO emissions in the Downtown area are shown in Table 23./2/ (See Appendix D, p. 330, for discussion of buildings analyzed).

Base-case CO concentrations in 1983 would be from 17% to 19% lower than existing (1980) concentrations, due to emission controls on recent and new motor vehicles mandated by state and federal regulations, provided the mandated controls do not change. Even so, without project implementation the 8-hour CO standard is projected to be exceeded during worst-case meteorological conditions on Clay St. The project itself would not measurably increase concentrations on Clay St., nor would it cause new excesses of the CO standards elsewhere on the eight other streets considered in the traffic

TABLE 23: PROJECTED CUMULATIVE WORST-CASE ROADSIDE CARBON MONOXIDE EMISSIONS IN 1983 (ppm)

Street	1980	1983 Base-Case	1983 Base-Case + A*	1983 Base-Case + A + B**
Beale (Market-Mission)				
1-hour	20.3	16.5	23.8	23.9
8-hour	9.2***	7.6	8.1	8.1
Fourth (Folsom-Harrison)				
1-hour	26.4	21.4	27.7	28.0
8-hour	10.8***	8.9	9.4***	9.5***
Clay (Front-Davis)				
1-hour	27.7	22.3	26.3	26.3
8-hour	11.8***	9.7***	10.0***	10.0***

*A = Cumulative projects (see Appendix D, p. 330)
**B = Proposed project
***Underlined values are those which exceed the applicable standard (35 ppm for one hour, 9 ppm for eight hours).

SOURCE: Environmental Science Associates, Inc.

analysis. However, cumulative development, including the proposed project, would increase Clay St. CO concentrations, possibly increasing the frequency of excesses of the 8-hour standard. It would also result in new excesses of the 8-hour CO standard on Fourth St., which would not be expected to occur under base-case conditions.

In addition to CO, the project and other downtown development would add to Bay Area accumulations of hydrocarbons and nitrogen oxides (which are precursors of ozone), particulates, and sulfur oxides during adverse meteorological conditions. The Air Quality Plan/3/ found that ozone would continue to be a Bay Area problem in the future, that CO and particulates would continue to be problems on a local scale, and that certain pollution control strategies would be necessary to attain the standards for these pollutants as required by federal law. Although the project would not directly conflict with these strategies, it would impede the objectives of the Plan by generating

additional emissions of hydrocarbons, CO, and particulates within the air basin and in San Francisco.

NOTES - Air Quality

/1/ U.S. Environmental Protection Agency (U.S. EPA), 1977, Compilation of Air Pollutant Emission Factors, AP-42, p. 11.2.4.1.

/2/ CO calculations assume worst-case poor-dispersion meteorological conditions according to the BAAQMD Guidelines for Air Quality Impact Analysis of Projects, 1975, updated for 1979 emission factor revisions. "Background" concentrations (contributions from upwind sources) were assumed, on the basis of the average of the annual second-highest concentrations recorded over the past three years, to be 14.4 ppm (1-hour) and 8.3 ppm (8-hour) in 1980, and 11.8 ppm (1-hour) and 6.8 ppm (8-hour) in 1983.

/3/ Association of Bay Area Governments (ABAG), BAAQMD, and Metropolitan Transportation Commission, January 1979, 1979 Bay Area Air Quality Plan, San Francisco Bay Area Environmental Management Plan; August 1979, 1979 Update, San Francisco Bay Area Environmental Management Plan.

E. NOISE/1/

COMPATIBILITY OF PROJECT WITH EXISTING NOISE LEVELS

The Environmental Protection Element of the San Francisco Comprehensive Plan contains guidelines for determining the compatibility of various land uses with different noise environments./2/ For office use the guidelines recommend no special noise control measures in an exterior noise environment of up to an L_{dn} of 70 dBA. The existing exterior L_{dn} levels at the site are estimated to be 70 to 72 dBA. For these levels, the guidelines recommend an analysis of noise reduction requirements and inclusion of noise insulation features in the building design. As the building would be climate-controlled, the expected worst-case interior L_{dn} noise levels at the lower levels of the building would be approximately 50 to 52 dBA, 20 dBA below the outside noise level. Noise generated by machinery and office activities within the building would not increase these levels appreciably. Noise from individual trucks and buses passing the site would exceed the interior L_{dn} by up to 20 dBA. Generally, noise levels above 60 dBA would interfere with normal speech.

NOISE IMPACTS DUE TO PROPOSED USE

After the structure is built and occupied, local noise levels could change in two ways: 1) noise due to increased traffic generated by the project, and 2) mechanical equipment noise.

The amount of traffic generated by operation of the project during any hour of the day would cause traffic noise levels to increase by less than 1 dBA. A 1-dBA increase in environmental noise is undetectable by the untrained human ear. No noise impact associated with increased traffic due to the project would, therefore, be expected.

Mechanical equipment to be used in the structure has not yet been specified. Historically, however, mechanical equipment in buildings has increased environmental noise levels in downtown San Francisco./3/ Mechanical equipment noise is regulated by the San Francisco Noise Ordinance, Section 2909, "Fixed Source Noise Levels."/4/ The project site and surrounding area are zoned C-3-O. In the C-3-O zone, the ordinance limits equipment noise levels to 70 dBA between 7 a.m. and 10 a.m. and 60 dBA between the hours of 10 p.m. and 7 a.m. at the receiver's property line. During lulls in the traffic, mechanical equipment generating 70 dBA would dominate the site noise environment. If equipment noise were to be limited to 60 dBA to meet the nighttime limit, it would be inaudible.

CONSTRUCTION NOISE IMPACT

The San Francisco Noise Ordinance, Section 2907b, limits noise emissions from any powered construction equipment to 80 dBA at a distance of 100 ft./4/ Adherence to this limit would ensure that this type of equipment would cause noise levels at the nearest building to be no greater than present maximum noise levels due to traffic and other mechanical equipment. No pile-driving would occur.

Trucking of construction materials to and from the site would not cause a noticeable increase in noise levels along haul routes (see Section IV.C.,

Transportation, Circulation and Parking, p. 92), because of existing traffic noise levels on the streets.

NOTES - Noise

/1/ A complete discussion of fundamental acoustical concepts is available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, San Francisco, and is hereby incorporated by reference into this EIR.

/2/ City of San Francisco, City Planning Resolution No. 7244, September 19, 1974, p. 19.

/3/ C. Brady, Senior Mechanical Engineer, San Francisco Department of Public Works, telephone communication, December 18, 1979.

/4/ City of San Francisco, Municipal Code, Part II, Chapter VIII, Section I, Article 29, 1972.

F. ENERGY

Construction activities are projected to consume approximately 12,000 gallons of fossil fuels and 200,000 kilowatt hours (KWH) of electricity during the 16-month construction period./1/

The structure would be designed to meet or exceed minimum energy efficiency standards established by the California Energy Commission./2/ The ventilation system would be a variable-air-volume type wherein the volume of air increases in proportion to the cooling load, thus conserving fan horsepower. Central fans would be used during normal business hours; small fan units on each floor during other periods./3/

Heat would be generated within the building by office equipment, lighting, and people. This heat would be reclaimed by use of small fan/coil units which would deliver the warm air to the perimeter of the building to make up for heat loss through exterior walls and windows. When this is not sufficient, additional heat would be provided either by natural-gas-fired boilers or by steam obtained from Pacific Gas and Electric Company (PG&E). This steam is generated by natural gas combustion in the downtown area. Whichever method is ultimately chosen, the steam would be converted to hot water and circulated

through a heat exchanger for space heating. The condensate (from cooling the steam) would be reclaimed for domestic hot water and for heating the first floor./3/

Cooling would be accomplished first by an economizer cycle which would use cool outside air in excess of the minimum requirement, whenever possible. When additional cooling is required, a central mechanical water chiller with controls to optimize load demand would be used. Mechanical chillers use a compressor to cool a liquid refrigerant, which is then circulated through a coil to cool air./3/

Other measures would be included to reduce energy consumption. Office suites would be individually controlled. General illumination would be approximately 20-30 footcandles, with task lighting at approximately 75 footcandles./3/ (General illumination levels of 75-300 footcandles have been historically common in downtown office buildings.)

Projections of the average daily and monthly operational energy consumption of the structure are shown in Table 24. The connected kilowatt load (total load of all electrical facilities in the building if they were to operate at the same time) would be approximately 2,423 kilowatts. Peak at-source (generating plant) fossil-fuel consumption for electricity would be approximately 28.5 million BTU per hour at 4:00 p.m. on July and August weekdays, when energy demand for air conditioning would be at its highest. This would coincide with PG&E's peak use period for electricity which occurs from 4:00-6:00 p.m. in August. Peak at-source fossil-fuel consumption for natural gas (or steam) would be approximately 4.4 million BTU per hour at 6:00 a.m. on January weekdays, when energy demand for space heating would be at its highest. This would not directly coincide with PG&E's peak use period for natural gas which occurs from 6:00-9:00 p.m. in January. Daily and annual demand distribution curves for electricity and natural gas are shown in Figures 24 and 25, pp. 118 and 119.

Average electrical consumption would be approximately 2.17 KWH per sq. ft. per month. For comparison, recent approved high-rise structures proposed for 333, 444 and 595 Market St. have projected average consumption rates of 1.4, 1.8

TABLE 24: PROJECTED AVERAGE DAILY AND MONTHLY OPERATIONAL ENERGY CONSUMPTION DUE TO PROJECT

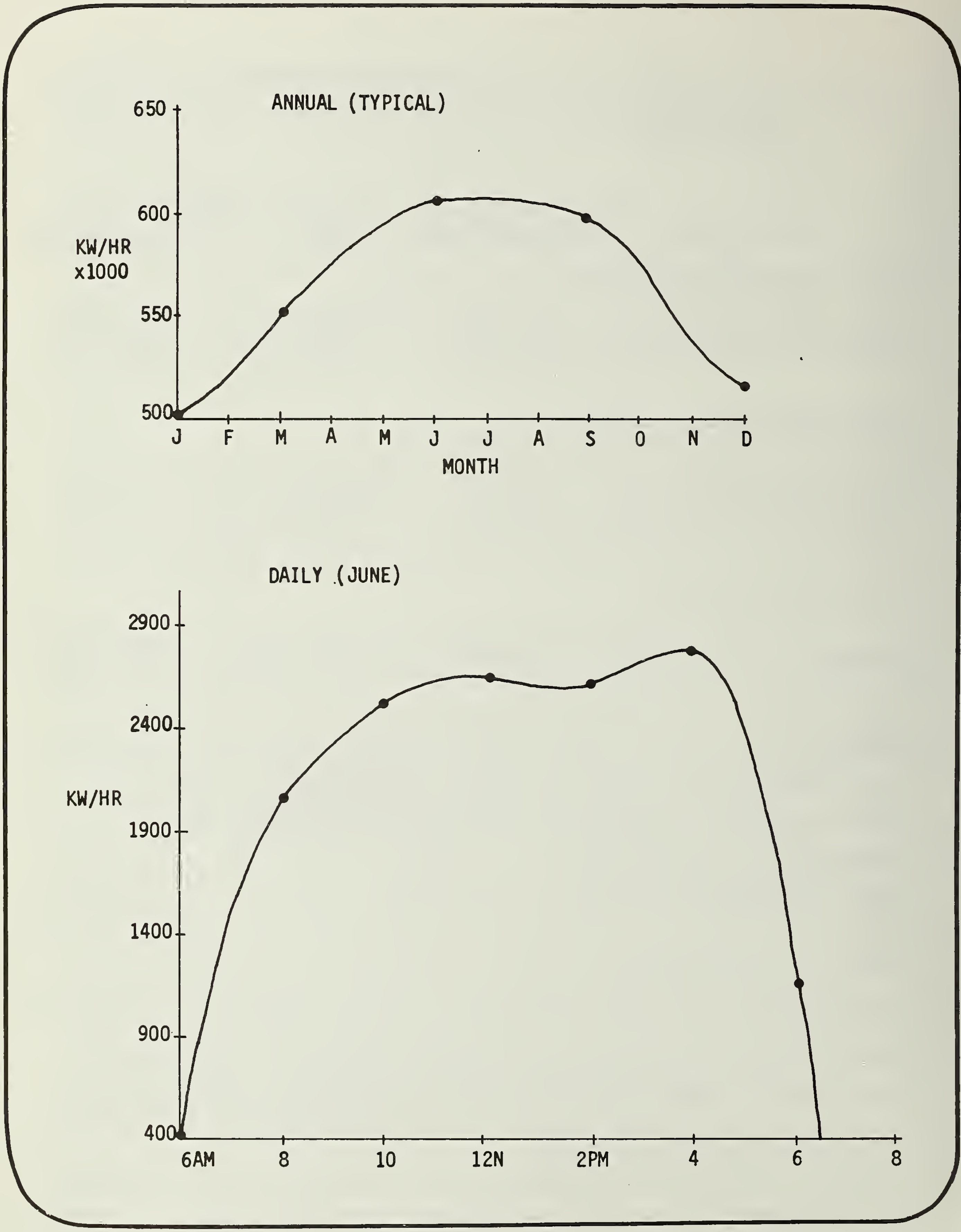
	DAILY (M-F)		Monthly	
	Total	Per Square Foot	Total	Per Square Foot
Average Electrical Consumption				
Point-of-Use	25,770 KWH	0.10 KWH	567,000 KWH	2.17 KWH
At-Source*	2,639 Therms**	1,024 BTU	58,055 Therms	22,219 BTU
Average Natural Gas Consumption				
Point of Use	14,880 ft^3	0.06 ft^3	327,400 ft^3	1.25 ft^3
At-Source	164 Therms	66 BTU	3,601 Therms	1375 BTU
Total Energy Consumption				
At-Source	2,800 Therms	1,090 BTU	61,660 Therms	23,590 BTU

*At-source energy was translated into the equivalent heat content (therms and BTU) of KWH of electricity and cubic feet of natural gas. It equals the point-of-use energy consumption plus energy losses in generation, transmission, and distribution.

**One Therm equals 100,000 BTU.

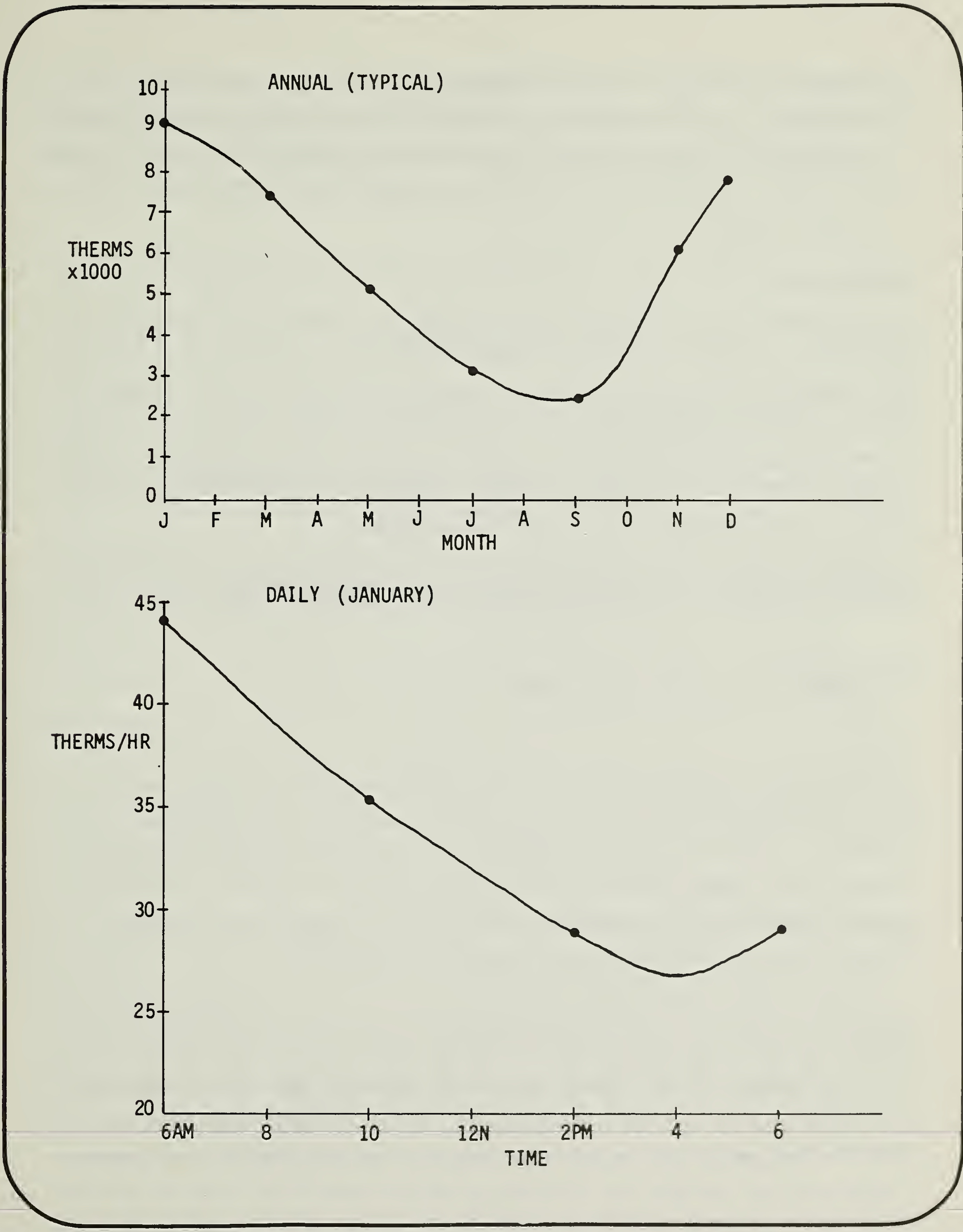
SOURCE: Yoshpe Engineers.

and 2.5 KWH per sq. ft. per month. Average natural gas consumption at the project would be approximately 66 BTU per sq. ft. per day, compared to projected average consumption rates of 137, 120 and 300 BTU per sq. ft. per day for the buildings cited above.



SOURCE: Yoshpe Engineers

FIGURE 24: PROJECTED ELECTRICAL LOAD DISTRIBUTION CURVES



SOURCE: Yoshpe Engineers

FIGURE 25: PROJECTED NATURAL GAS DEMAND DISTRIBUTION CURVES

Implementation of the project would also increase motor vehicle energy consumption. In 1983, direct fuel consumption due to project-related travel is projected to be approximately 700 gallons per weekday, or 87.5 million BTU per weekday. These amounts would decline somewhat as automobile fuel efficiency improves until about 1995./4/

NOTES - Energy

/1/ Axel Muller, Cahill Construction Company and Environmental Science Associates, telephone conversation June 9, 1980.

/2/ California Administrative Code, Title 24, Part 6, Article 2: Energy Conservation Standards for New Nonresidential Buildings.

/3/ Robert Wood, Yoshpe Engineers, letter communication, April 1980. A copy of this document is available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, San Francisco, and is hereby incorporated by reference into this EIR.

/4/ CalTrans, December 1978, Energy and Transportation Systems, Final Report, page A-40, prepared for National Cooperative Highway Research Program.

G. COMMUNITY SERVICES AND UTILITIES

The San Francisco Police Department indicates that construction of the proposed project could result in an increase in burglary and petty theft due to the resulting increase in downtown office population and property value./1/ Internal security arrangements in the building would include a closed-circuit camera system and a building security staff./2/ The Central District Police Station indicates that it would not require additional personnel or equipment to serve the proposed project./3/

Cumulative downtown development would eventually increase the demand for police services because of the resulting additional population, property and traffic. However, because most new downtown office/commercial developments incorporate security systems and personnel in their plans, they typically require fewer public police services than do older but similar developments.

The proposed project would incorporate in its design all fire safety measures required by the San Francisco Building Code, including sprinkler and alarm

systems, annunciators and an emergency power source among others. The existing water supply would be adequate to provide required fire flows to the project. The Fire Department does not anticipate the need for additional personnel or equipment to serve the site./4/

Life safety code requirements for fire protection, as designed by the state and adopted as part of the San Francisco Building Code, reduce the cumulative impact of newer developments on Fire Department services. According to the San Francisco Fire Department, newer highrise buildings present less of a fire hazard than low-rise buildings because of life safety code requirements. Once a fire begins, however, it typically requires more manpower to fight. In such a case, additional personnel and equipment are brought in from neighboring stations without requiring permanent additional personnel or equipment./5/

Water demand due to the project would be a projected 32,000 gallons per day (gpd),/6/ about three times the current use on the site. Sufficient capacity exists to provide service to the site, but street excavation would be necessary to connect water services to the proposed project. Excavation would occur only on Sundays, and street plates would be used to minimize traffic disruption./7/

Cumulative downtown development now proposed or under consideration is projected to generate a demand for 2.76 million gallons of water per day, 3.5% of the present average daily San Francisco water use.

The proposed project would generate about 31,000 gpd of dry-weather wastewater flows./8/ This would represent .06% of the average daily dry-weather flows currently treated by the North Point Pollution Control Plant, and would be within the capacity of the plant. Existing mains could continue to serve the site without expansion. However, street excavation would be necessary for two to three weeks along either Montgomery St. or Sutter St. to install sewer laterals. Street plates would be used to minimize traffic disruption./9/ Wet weather overflows of untreated stormwater and sewage into the Bay will continue to occur until sewer expansion projects now underway are completed.

Cumulative downtown development, including the proposed project, would generate about two million gallons of wastewater per day, or 3% of the current average daily dry-weather flows to the North Point Plant. This would represent 2.4% of the capacity of the Southeast Treatment Plant after expansion is completed in September 1982. Flows to the North Point Plant will be directed to the Southeast Plant after the expansion.

The proposed project would generate about 1.4 tons of solid waste per day./10/ The building would have compaction facilities./2/ The Golden Gate Disposal Company estimates that the building would require three or four collections per week. This would be fewer trips than required by collections of uncompacted materials from the site at present. The Company anticipates no problem in serving the proposed project./11/

During demolition and construction, approximately 5,000 cubic yards of spoils would be removed from the site. The material would be trucked to a disposal site in Brisbane owned by the Solid Waste Recycling Corporation./12/

Cumulative solid waste generation by downtown developments, including the proposed project, is projected to be 72 tons per day. The effect of cumulative development on solid waste disposal facilities cannot be determined until plans are finalized for disposal after expiration of the present landfill contract.

Electrical capacity in the vicinity of the site is large and would not require expansion to serve the proposed project. However, substructure installation work in the immediate area of the site, but not extending into the street, would be necessary during construction, and would require two weeks to three months to complete. Street excavation would probably not be required.

If the proposed project were to use steam, no subsurface street work would be required for steam main connection. If natural gas were used, two to three weeks of street excavation would be required to enlarge and reinforce gas mains. This work would be carried out at night and street plates would be used to minimize traffic disruption./13/

NOTES - Community Services and Utilities

/1/ P. Libert, Officer, Planning and Research Division, San Francisco Police Department, personal communication, February 12, 1980.

/2/ R. Cahill, Cahill Contruction Company, Inc., letter communication, January 31, 1980.

/3/ W. Koenig, Captain, Central District Station, San Francisco Police Department, letter communication, February 14, 1980.

/4/ R. Rose, Chief, Division of Planning and Research, San Francisco Fire Department, letter communication, February 26, 1980. This letter is available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde St., Room 319.

/5/ R. Rose, Chief, Division of Planning and Research, San Francisco Fire Department, telephone communication, March 10, 1980.

/6/ The water demand projection assumes office use of 125 gpd per 1,000 sq. ft. of net floor space (254,250 sq. ft. in this case); Brown and Caldwell Consulting Engineers, 1972, Report on Wastewater Loading from Selected Development Areas, as cited in San Francisco City Planning Commission and San Francisco Redevelopment Agency, 1978, Final Environmental Impact Report/Yerba Buena Center.

/7/ J. Kenck, Manager, San Francisco Water Department, City Distribution Division, letter communication, February 19, 1980. This letter is available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde St. Room 319.

/8/ The wastewater generation projection assumes that 0.3% of water used will be lost through evaporation, etc.; thus 97% of the water used will enter the sewer system as wastewater.

/9/ M. Francies, Engineering Associate II, Sewer Investigation, Engineering Department, San Francisco Wastewater Program, letter communication, February 15, 1980. This letter is available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde St. Room 319.

/10/ State of California Solid Waste Management Board, 1974, "Solid Waste Generation Factors in California." 277,200 gross sq. ft. x 1 lb./100 gross sq. ft. /day = 2,665 lbs. or approximately 1.4 tons/day.

/11/ F. Garbarino, Office Manager, Golden Gate Disposal Company, telephone communication, February 8, 1980.

/12/ J. Cahill, Cahill Construction Company, letter communication, April 4, 1980.

/13/ L. Cordner, Engineering Office Representative, Pacific Gas and Electric Co., telephone communication, February 7, 1980.

H. GEOLOGY, SEISMOLOGY AND HYDROLOGY

GEOLOGY

The project sponsors anticipate that the project would require little new excavation, as the site has already been excavated to the planned 20-ft. depth for the existing basements on the site. It is likely, however, that some additional excavation would be required to remove artificial fill material that is unsuitable for building foundations.

Assuming any unstable artificial fill materials under the existing basements were removed, the planned spread-footing foundation would probably rest on underlying dense sands (see Appendix G, p. 351 for a tentative geologic profile of the site). Such sands generally form a sound foundation base and are a common foundation material for buildings in downtown San Francisco. In this case, the net building loads beneath the office tower would probably cause some settlement due to compression of the sands and consolidation in the underlying stiff clays. The total settlement has not been estimated, but could be on the order of one or two in., of which 75-80% would probably occur within one year of building completion. This degree of settlement would not be expected to present a problem, as it could be accommodated in the design and construction of the structure.

During site excavation, the removal of earth and detritus from the demolished buildings could cause the spillage of silt and sand in the streets along the haul routes. This spillage could present an inconvenience and safety hazard for pedestrians and operators of vehicles, particularly motorcyclists and bicyclists. The dirt could also be a source of airborne dust, and siltation in affected stormdrains.

Dewatering of the excavation pit may be necessary, but would be expected to be negligible based upon recent construction experience in the vicinity./2/ Should dewatering be necessary, however, it could cause settlement in the soils adjacent to the excavation, which, in turn, could cause walls of neighboring old brick and masonry buildings which lack rigid footings to crack or lean out of plumb, and their floors to bend or tilt out of horizontal. The

buildings most likely to experience this type of damage include the Alexander Building at the northern edge of the site, and the neighboring buildings on the west side of Trinity St., such as the French Bank Building at 108-110 Sutter St.

Settlement also may cause cracks or swales/3/ in adjacent streets and sidewalks, and could damage underground utility lines. Because of the potentially high costs of repairs associated with such damages, the Department of Public Works generally requires that a surety bond be posted before issuance of an excavation permit. The construction contractor would be held responsible for any damage which might result from dewatering.

SEISMOLOGY

Strong ground shaking/4/ during a major earthquake might damage the proposed office tower, but would not be expected to cause its collapse (see Appendix G, p. 351, for a discussion of history of seismic activity). The building would be constructed with a structural steel frame on a spread footing-type foundation or on caissons,/2/ and would be designed to meet the seismic standards of the Uniform Building Code (UBC). The swaying motions of the building in a major earthquake, particularly one of long duration, could topple bookcases, overturn furniture or cause the fall of heavy ceilings, light fixtures and unattached decorative objects. The upper floors of the building could sway up to 22 in., which could break some windows and dislodge exterior masonry panels, thereby posing a potential hazard to pedestrians and vehicular traffic. However, the net effect of the proposed project would probably be to reduce seismic hazards at the site, as the proposed building would be constructed to meet the specifications of the Uniform Building Code and would replace the existing pre-code buildings. As indicated elsewhere in this report (see Section III.H., Geology, Seismicity and Hydrology, p. 59), these buildings have been cited for violations of the parapet safety provisions of the building code. These old buildings would have a higher risk of collapse, and more material from cornices, brick facades and decorative terra cotta would be likely to fall in a major earthquake.

If liquefaction, lateral landsliding, or rapid settlement were to occur in the vicinity, water mains, pipes and underground utility lines could break, leaving the building without water, power, or telephone communications. Elevators could be made inoperable due to loss of power or damage to the elevator system. Local streets could buckle or crack due to lateral landsliding accompanying liquefaction or rapid settlement.

HYDROLOGY

As the proposed project, like the existing structures, would occupy the entire site, no change in surface runoff from the site would be anticipated. Any dewatering conducted in the excavation pit during the construction is tentatively expected to be negligible, although no engineering estimates of possible flow rates have been prepared. If dewatering were necessary, the water would be discharged into the storm drain system. If this water were directed into the street gutter, some sand and silt material would be deposited on the street and in the storm drains. Street silt creates a minor safety hazard and inconvenience for pedestrians and some vehicles, such as motorcycles and bicycles. Silt is also unsightly and can be an annoying source of dust.

Any temporary lowering of the groundwater levels due to dewatering is expected to have no permanent impact upon groundwater conditions in the area. The project would have no direct impact upon water quality.

NOTES - Geology, Seismology and Hydrology

/1/ R.W. Cahill, Director, Cahill Construction Company, memorandum, December 19, 1979.

/2/ Levon Nishkian, Civil Engineer No. 28549, Martin, Cagley and Nishkian, Engineers, San Francisco, telephone communication, February 22, 1980.

/3/ A swale is a slight depression in generally level ground.

/4/ The San Francisco Intensity scale is a rating system of the effects of ground shaking on a scale of five including weak, strong, very strong, violent, and very violent. Blume and Associates used this scale in its seismic safety investigations (1974) in rating the estimated intensity of future ground shaking in San Francisco.

I. GROWTH INDUCEMENT

The project would add 218,165 net leasable sq. ft. of office space and remove 14,000 net leasable sq. ft. of retail/restaurant space from the Financial District. Employment at the site would increase by about 890, from about 176 to about 1,060. Except for one tentatively secured tenant, a bank which would occupy the second floor, it is not known who would occupy the new building. Occupants could include tenants that relocate from other San Francisco locations, tenants that relocate from outside San Francisco, or new firms. Therefore, the increase in employment at the project site would not necessarily represent employment that is new to San Francisco. If the building is fully leased, however, and the availability of its space does not create permanent vacancies in other San Francisco office buildings, total employment in San Francisco would eventually increase directly by about 890 jobs due to the project. Approximately 280 additional jobs would be indirectly supported in San Francisco through the multiplier effect (see Section IV., Economic, Housing and Fiscal Factors, p. 78).

This growth would be in response to the continually increasing demand for office space located in San Francisco's Financial District. This demand would exist whether or not the proposed project is built. The demand for office space continues the trend of strong growth in service sector and headquarters office activities and employment. This increase in downtown office space and employment would contribute to the continued growth of local and regional markets for goods, services and housing.

It may be expected that some downtown workers would desire to live in San Francisco. Employment growth, however, may not correspond directly to increases in demand for housing and City services to residents, as some new jobs would be held by individuals who already live in the City but who previously either did not work or worked outside the City, or by those who prefer to live in surrounding communities or by those who would not be able to afford housing in the City.

Any net increase in employment downtown would increase the demand for retail goods and food services in the area. By increasing office employees and

reducing retail/restaurant space, the project would intensify the demand for retail goods and food services relative to their supply. At least some of this demand would be met locally by the proposed Crocker retail galleria.

Increases in employment downtown would also increase demand for business services, to the extent that the expanded space would not be occupied by firms providing those services. In response, demand would increase for existing space and possibly for further new development.

No major construction or capital improvements to municipal service systems would be needed to accommodate the project as no expansion thresholds would be reached. Thus, no expansion to the municipal infrastructure not already under consideration would be required to facilitate new development and increased employment.

V. MITIGATION MEASURES PROPOSED TO MINIMIZE THE ADVERSE EFFECTS OF THE PROJECT

In the processes of project planning, design, and coordination, a number of measures have been identified that would reduce or eliminate the potential adverse environmental effects of the proposed project. Most of these measures have been or would be adopted by the project sponsors or their architects, builders, or other contractors. A few measures are still under consideration, and some have already been rejected as infeasible or uneconomical.

Each mitigation measure and the status of each are discussed briefly below. Where a measure has been rejected, the reasons for its rejection are also discussed. Where a measure is still under consideration, the actions required for implementation are also shown. Except as indicated, these measures would be optional on the part of the project sponsor, its architects, or future contractors, unless required by the City as conditions of project approval.

A. URBAN DESIGN FACTORS

MEASURES PROPOSED AS PART OF THE PROJECT

- ● The project would include street-level retail uses, brick paving, widened sidewalks, street trees and planters, and a pedestrian arcade, which would help provide pedestrian scale, interest, and/or wind protection.

- ● The project would be set back from the Sutter St. property line about 15 ft. to provide a widened sidewalk area and to reveal the southeast corner of the adjacent French Bank Building, rated "A" in the Heritage Survey ("4" in the City Survey). The setback would also interrupt the otherwise continuous facade line of the 100-block of Sutter St.

- The project would have light to medium color values, articulated exterior surfaces, and ornamentation intended to complement neighboring older buildings.

- Vehicular access to the site would be via Bush St., rather than Montgomery St., to minimize potential for vehicle-pedestrian conflict, and to avoid creating curb cut and gap in building facades on Montgomery St.

- The project would retain the Alexander Building, rated "B" in the Heritage Survey.

MEASURES UNDER CONSIDERATION BY PROJECT SPONSOR

- Should evidence of archeological artifacts be uncovered at the site during construction, require the following: 1) that the contractor notify the Environmental Review Officer and the President of the Landmarks Preservation Advisory Board; 2) that the contractor suspend construction in the area of the discovery for a maximum of four weeks to permit review of the find and, if appropriate, retrieval of artifacts; 3) that the project sponsor pay for an archeologist or historian selected by the Environmental Review Officer to help review the find and identify feasible measures, if any, to preserve or recover artifacts; and 4) that if feasible measures are identified they be implemented by the project sponsor.

- Photograph, according to National Architectural and Engineering Record standards, buildings on the project site, and in particular the relationship between the California Pacific Building and the 100 block of Sutter Street (see Figure 11, p. 24). File photographs with the San Francisco Public Library.

- Provide street furniture, lighting, planting, or other decorative features to enhance pedestrian interest and comfort within pedestrian arcade.

- Control design of signs and graphics to avoid garish and distracting appearances.

- Provide local shelters or windbreaks for pedestrians at the intersections of Sutter and Montgomery Sts., and Bush and Mongomery Sts. These could include kiosks for newspaper or flower vendors, bus stop shelters, and street trees.

MEASURE REJECTED

- Retain the California Pacific Building, due to its architectural contribution to the Hallidie block. This measure has been rejected by the project sponsor for reasons discussed under Alternative 4, (see p. 152).

B. EMPLOYMENT, HOUSING AND FISCAL FACTORS

MEASURES PROPOSED AS PART OF THE PROJECT

- Project sponsor would offer displaced tenants comparable space in other sponsor-owned properties in San Francisco, as available.

- Relocation consulting services would also be provided by the Mayor's Office of Economic Development, the Chamber of Commerce, and private consultants, upon request.

- The project is designed to accommodate from four to 11 retail uses at street level. The project sponsor would give preferential consideration to small business retail applicants in order to maximize the number of street-level retail uses.

MEASURES UNDER CONSIDERATION BY PROJECT SPONSOR

- Provide independent relocation consulting services upon request by commercial and retail tenants displaced by the project.

- In recognition of the need for public transit services to meet peak demand generated by cumulative office building development in the Downtown district, participate in a Downtown Assessment District, or similar nondiscriminatory mechanism, to provide funds for mass transit, should such a mechanism be required by a City ordinance.

- - Reduce impacts upon local and regional housing markets by contributing to a Housing Development Fund or similar program, should an appropriate funding mechanism be required by the City.

- - In order to help alleviate the housing demand attributable to the project, the project sponsor could apply good faith efforts to build, or cause to be built, new housing units in the San Francisco Bay Area and/or rehabilitate, or cause to be rehabilitated, existing substandard housing units in the San Francisco Bay Area; the total number of such new and/or rehabilitated units to be determined in cooperation with the Department of City Planning.

- - In cooperation with the Department of City Planning or other appropriate agency of City government, project sponsor could participate in coordinating formation of a panel of lenders, developers, architects, builders and representatives of relevant interest groups and agencies to explore and develop approaches to the alleviation of local and regional housing shortages. The efforts of the panel could be directed toward preparation of a study addressing contemporary and foreseeable housing issues and their resolution. Particular attention could be directed toward the appropriate role, if any, of Downtown property owners, tenants and developers in alleviating identified shortages. The study could be prepared, published and presented in an appropriate public forum and in a timely manner.

MEASURE REJECTED

- Project sponsor could guarantee location of suitable new space for dislocated tenants, payment of moving expenses, or other financial assistance. These measures have been rejected by the project sponsor as costly and beyond the provisions and obligations of its tenant leases.

C. TRAFFIC, CIRCULATION AND PARKING MITIGATION

MEASURES PROPOSED AS PART OF THE PROJECT

- During the afternoon hours, all construction truck traffic would be required to enter or exit the site before 4 p.m. to avoid conflicts with p.m. peak-hour traffic. The project sponsor would meet with the Traffic Engineering Division of the Bureau of Engineering and with the Office of Environmental Review to determine additional feasible construction traffic mitigation measures which would be satisfactory to all parties.

- The placement of paving, landscaping and structures in the sidewalk area (subject to City approval) would be done in such a way as to minimize interference with pedestrian traffic.

- Provide freight elevator.

- Provide two surface loading spaces on the present site of 25 Trinity St. to reduce service parking on Montgomery St. and to provide ample maneuvering room for large service vehicles.

- Should construction vehicles from the proposed project exacerbate traffic conditions on any haul routes shared by construction traffic from the neighboring Crocker National Bank project, the project sponsor would reroute project traffic, to the extent feasible, in consultation with the Department of Public Works.

MEASURES UNDER CONSIDERATION BY PROJECT SPONSOR

- Encourage transit use by requiring prime tenant (through lease provision) to sell BART and Muni passes on site, and encourage tenant carpool/vanpool systems in cooperation with RIDES for Bay Area Commuters or other similar enterprises.

- Encourage a tenant carpool/vanpool system by providing a central clearinghouse for carpool information and by providing preferential parking for carpool and vanpool users.

- Conduct some construction work at night or on weekends, especially during construction phases with greatest potential for traffic conflicts.

- Eliminate the proposed service parking and loading area on Trinity St. (Lot 26) and retain the existing Domino Club Building. This measure could reduce service vehicle traffic, congestion and vehicle-pedestrian conflicts on Trinity St., and would ostensibly require service vehicles to use proposed parking and loading facilities in the project basement. These proposed facilities and the access ramp from Bush St. meet Planning Code requirements (two loading spaces, one 10 ft. by 25 ft., one 10 ft. by 35 ft., 14-ft. clearance), but would be less convenient for drivers to use than would Trinity St. As a result, some drivers of service vehicles would probably continue to use Trinity St. even if the presently proposed surface loading area were not built.

- Examine the possibility of establishing a "flextime" system of flexible arrival and departure hours for tenants to reduce the concentration of commuters during peak traffic hours.

- Provide a tenant directory in the service lobby.

- Provide secure and safe bicycle parking facilities relative to the demand generated by project users.

MEASURES THAT COULD BE IMPLEMENTED BY PUBLIC AGENCIES

- The overload that would occur on the SamTrans mainline (Highway 101 Route) due to cumulative development could be mitigated by provision of additional buses, by headway changes, and possibly by shifts in routes. The San Mateo Transit District is the agency controlling the assignment of additional buses; it is controlled by funds available through its taxing and revenue system. The Metropolitan Transportation Commission is the regional administrator of Federal Urban Mass Transit funds and California funds. Implementation of this mitigation measure would depend on the availability of funds and on actions by MTC and SamTrans.

- The projected peak-hour Level of Service at the intersection of Beale and Mission Sts. would be reduced to F under cumulative development conditions, exclusive of the proposed project. This effect could be mitigated by restriping the Beale St. approach to the intersection. At the present time, Beale St. is striped for three lanes southbound. There is a bus stop on the west side and curbside parking on the east side. Sufficient width is available to restripe the approach to five lanes if towaway restrictions were placed on the curbside parking during peak hours. The resulting lane pattern could be one left-and-freeway lane, two freeway-only lanes, one through lane and one through-and-right lane. The Level of Service would change from F to D (volume to capacity ratio (v/c) change from 1.03 to 0.90) for the suggested pattern. Such a measure would be under the jurisdiction of the Bureau of Traffic Engineering (DPW) and would be considered as a possible mitigation measure at such time as the projected conditions develop.

- The critical approach to the intersection of Mission and Main Sts. is the freeway off-ramp which currently has two lanes northbound onto Main St. The volume of traffic projected to use these lanes in 1983, including cumulative development but exclusive of the project, would decrease the Level of Service to F. This projected volume exceeds the carrying capacity of the approach as it is currently constructed. To increase the capacity of the off-ramp, more green time could be allocated to the appropriate phase of the traffic signal by prohibiting left-turns from eastbound Mission St. onto Main St. This measure would change the Level of Service from F to E (v/c ratio change of 1.11 to 0.93). This measure could affect the Muni routes on Mission St. by causing transit vehicles to stop more frequently (less green time would be allocated to Mission St.). Such a measure would be under the jurisdiction of the Bureau of Traffic Engineering (DPW) and would be considered a possible mitigation measure at such time as the projected conditions develop. Further reduction in the v/c ratio would not be possible without lane additions to the off-ramp which would be under the jurisdiction of CalTrans.

- Mitigation of the projected Level of Service E operation during peak hours due to cumulative development but exclusive of the project, at the intersection of Clay and Front Sts. would be possible through restriping of the northbound approach. The approach currently is striped to carry two lanes of traffic. Use of a peak-hour towaway lane to allow three lanes of traffic would cause a change in Level of Service from E to D (v/c ratio change from 0.95 to 0.89). Such a measure would be under the jurisdiction of the Bureau of Traffic Engineering (DPW) and would be treated as a possible mitigation measure at such time as the projected conditions develop.

- See also fourth mitigation measure under Employment, Housing, and Fiscal Factors, p. 131.

MEASURE REJECTED

- Project sponsor could require that no construction traffic enter or leave the project site before 9 a.m.; to avoid conflicts with morning peak-hour

traffic. This measure has been rejected because in the opinion of the project sponsor it would delay daily deliveries of materials to the site and would shorten the productive work day, thereby increasing project costs and prolonging the construction period.

- Project sponsor could eliminate subsurface parking to further reduce potential for pedestrian-vehicle conflict at Bush St. entrance, and to comply with City policy discouraging new parking facilities in Downtown core. This measure has been rejected because, in sponsor's opinion, proposed spaces represent minimum necessary to meet tenants' anticipated parking requirements for carpools/vanpools; handicapped personnel, sales and field personnel; and other service personnel requiring midday or emergency mobility.

- Project sponsor could provide a subsurface pedestrian connection between the project and the Montgomery Street transit station. This measure has been rejected as economically costly and physically difficult due to intervening underground utilities and subsurface structures.

D. AIR QUALITY

MEASURES PROPOSED AS PART OF THE PROJECT

- Project contractor would sprinkle unpaved demolition and construction areas with water at least twice a day to reduce dust generation by approximately 50%.

- Contractor would also maintain and operate construction equipment so as to minimize exhaust emissions.

- Project sponsor would comply with BAAQMD Regulation 8, Rule 3; providing for use of water-based paints rather than oil-based paints to reduce hydrocarbon emissions by up to 75%.

E. NOISE

MEASURES PROPOSED AS PART OF THE PROJECT

- Project architect and contractor would design and construct exterior walls to afford noise insulation in accordance with guidelines of the Environmental Protection Element of the San Francisco Comprehensive Plan.

- Project contractor would comply with San Francisco Noise Ordinance Sections 2908 and 2909, which limit noise levels during evening and nighttime hours.

- Project contractor would comply with San Francisco Noise Ordinance Section 2907b limiting noise emissions from powered construction equipment to 80 dBA at a distance of 100 ft. Project contractor would also muffle intakes and exhausts, shield or shroud impact tools, and use electric-powered rather than diesel-powered equipment, as feasible.

- Project would not require piledriving.

F. ENERGY

MEASURES PROPOSED AS PART OF THE PROJECT

- Project would reclaim internally-generated heat for use at the perimeter of the building.

- Project would reclaim condensate from steam cooling for domestic hot water and for first-floor space heating.

- Project would employ an economizer cycle to use outside air for cooling, as feasible.

- Office suites would be equipped with individual light switches.

- Task lighting would reduce general illumination levels.

- Project would comply with California Energy Commission minimum standards for energy conservation.

- Project would comply with the Federal Energy Building Temperature Restrictions in the operation of heating, ventilating and air conditioning (HVAC) equipment.

MEASURE UNDER CONSIDERATION BY PROJECT SPONSOR

- Make containers available to tenants for collection and storage of recyclable solid wastes, such as glass, metal, computer cards, and newspaper.

MEASURE REJECTED

- Use of solar energy has been rejected as inefficient, uneconomic and duplicative of other HVAC systems, which would still be required.

G. COMMUNITY SERVICES AND UTILITIES

MEASURES PROPOSED AS PART OF THE PROJECT

- The project would provide an internal security system.

- The project would include all fire safety features required by the Life Safety Code, including a fire alarm system and an alarm monitoring station which would be equipped to indicate the time and location of a fire, switch on emergency power sources, and control the elevators. Other requirements would be an automatic fire detection system, a voice communications system, ventilation for smoke control, a standby power generator, an on-site water supply, and a sprinkler system on every floor.

- The project would include a trash compactor.

- The project sponsor would provide tenants with a fire and earthquake safety orientation program and evacuation plan.

MEASURE UNDER CONSIDERATION BY PROJECT SPONSOR

- Screen visitors and restrict entrance to the building before and after normal working hours.

H. GEOLOGY, SEISMOLOGY AND HYDROLOGY

MEASURES PROPOSED AS PART OF THE PROJECT

- As required by the San Francisco Building Code, and to reduce seismic hazard, nonstructural elements, such as hanging light fixtures, hung ceiling and wall partitions and mechanical equipment, would be firmly attached to prevent their fall during an earthquake.

- During demolition and excavation, contractor would mechanically sweep streets adjacent to site to prevent siltation of storm drains. Contractor would also confine construction equipment maintenance and refueling activities to locations where petroleum spillage would be contained, and would construct wet and dry catchment basins on site to trap silt and debris for later transportation to dumps. Contaminants would be flushed to catchment basins, and debris and quality of water discharged into City sewers would be monitored.

- During construction, the contractor would shore up excavation pit walls to prevent slumping or lateral movement of soils into the pit. The contractor would comply with the Excavation Standards of the California Occupational Safety and Health Agency, Department of Industrial Relations.

- The project would include an emergency water supply and pumps, as required by the San Francisco Building Code, so that the sprinkler system would be more likely to be operable after an earthquake. This emergency measure

would mitigate the potential hazard created by fires occurring at a time when the water supply may be cut off by earthquake damage to water mains.

- See also fourth proposed mitigation measure under Community Services and Utilities, p. 137.

MEASURES UNDER CONSIDERATION BY PROJECT SPONSOR

- Have a geotechnical report prepared for the project by an appropriately licensed professional, and comply with the recommendations of that report for foundation design and site preparation.

- To ensure optimum structural stability during an earthquake, have project engineers perform a dynamic structural analysis for the project. At present, only a static design analysis is contemplated.

VI. SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED

A. URBAN DESIGN EFFECTS

The proposed project would require demolition of six buildings on the project site, five of which have received recognition for architectural merit. One of these structures, the California Pacific Building, is considered particularly important because it comprises the eastern end of the historic 100-block of Sutter St.

The project would be visible in the City skyline as seen from higher topography and buildings to the west, northwest, and south. Because the project would occupy a corner site and would be taller than existing structures on the site, it would be visually more prominent than existing structures, as seen from neighboring local streets and buildings. The project would interrupt some views of the Bay from neighboring office buildings to the south and east, and would interrupt some views of distant open space to the south and west from neighboring buildings to the north and east.

In general, the project would cast more extensive shadows than those cast by existing buildings. At street level, this effect would be most noticeable along Montgomery St. during some afternoon hours throughout most of the year. No existing public parks or plazas would be affected by shadows cast by the project. Wind speed ratios in the vicinity of the project site would decrease as much as 25% and increase as much as 30%, depending upon wind direction and observer location.

B. EMPLOYMENT AND HOUSING EFFECTS

The project would require demolition of approximately 50,000 gross sq. ft. of office and retail space and would result in the construction of about 277,000 gross sq. ft., a net gain of about 227,000 gross sq. ft.

The project would also remove about 19,900 net leasable sq. ft. of retail/restaurant space and would replace it with about 5,900 net leasable sq. ft. The number of street-level retail/restaurant tenants would be reduced from 12 to four. A total of sixty business tenants employing about 175 persons have been displaced from the project site.

The project would tend to contribute to increasing housing prices and decreasing vacancy rates in San Francisco.

C. TRANSPORTATION, CIRCULATION AND PARKING

Construction traffic would lessen the carrying capacities of access streets and haul routes during approximately 16 months of demolition, excavation, steel erection, and exterior and interior finishing.

At full occupancy, project users would require as many as 372 more parking spaces than the project would provide.

Peak-hour pedestrian volumes in the immediate vicinity of the project site would increase by as much as 11%, but would not result in a change in pedestrian flow regimes. The proposed curb cut on Bush St. would create a potential point of pedestrian/vehicle conflict.

D. AIR QUALITY

Demolition, earthmoving, and construction activities would affect local air quality conditions, especially particulate (dust) concentrations, for approximately one year.

Long-term air quality impacts would result primarily from increased vehicular emissions which would contribute to local and regional accumulations of carbon monoxide, hydrocarbons, nitrogen oxides, particulates and sulfur oxides, particularly during adverse meteorological conditions such as inversions. Project-related emissions would have no measurable impact on city or regional concentrations, however, and would not increase frequencies of standards violations.

E. NOISE

Noise impacts due to project construction may cause some intermittent work interference in neighboring office buildings, but noise levels in the vicinity of the project site would probably not exceed present maximums (impact pile driving would not be required).

F. ENERGY

Average monthly electrical and natural gas consumption would be approximately nine times and two times that of estimated existing on-site consumption, respectively. Total average monthly gas consumption would be approximately 3,600 Therms; average monthly electrical consumption would be about 58,000 Thems.

G. COMMUNITY SERVICES AND UTILITIES

The project would create increased demands for fire and police protection which would be largely offset by life safety systems required by the San Francisco Building Code and proposed internal security measures. The project would increase demands for City water and sewer services and solid waste disposal, but these demands could be met by existing service systems and would not require additional personnel, equipment or facilities.

H. GEOLOGY, SEISMOLOGY AND HYDROLOGY

Strong ground shaking during a major earthquake might damage the proposed tower, but planned seismic engineering of the new structures based on applicable seismic design standards would minimize earthquake hazards to the public and project occupants. Should dewatering be required, it could cause some settlement in soils adjacent to the site which could in turn cause cracks in nearby streets and old brick and masonry buildings, and could damage underground utility lines.

I. CUMULATIVE DEVELOPMENT

The proposed project, together with other major downtown office buildings under construction or proposed, would add approximately 10.9 million gross sq. ft. to the 59 million gross sq. ft. of office space that now exist in the City. This development would continue a trend of regional employment growth in service-sector and office headquarters activities. To the extent that this growth would exceed growth in available housing, it would also tend to put upward pressure on local housing prices.

In general, available information suggests that new office development in San Francisco generates greater revenues relative to costs than does existing development, as long as new development continues. Due to data limitations, however, this conclusion is tentative.

Traffic due to cumulative downtown development would decrease calculated vehicular levels of service at all five downtown access intersections examined in this report. Parking demand due to cumulative development would produce a parking deficit of approximately 3,025 spaces in the 28-block study area within walking distance of the project site. Increases in demand for public transportation services would result in a spreading of peak-of-the-peak ridership conditions on most carriers, with increased incidents of overloading most likely to occur on Muni, Golden Gate Transit motor coaches and BART transbay trains.

Cumulative downtown development would also contribute to local and regional accumulations of hydrocarbons, nitrogen oxides, particulates, sulphur oxides and carbon monoxide, and would impede attainment of the objectives of the 1979 Bay Area Air Quality Plan.

VII. ALTERNATIVES TO THE PROPOSED PROJECT

A. ALTERNATIVE 1: NO PROJECT

DESCRIPTION OF ALTERNATIVE

This alternative, would entail no change to the project site as it now exists. The six buildings which occupy the project site would remain, presumably in substantially the same conditions and uses that existed in early 1980 (see Section III., Environmental Setting, pp. 22-62 for a detailed discussion of the existing conditions).

DISTINCTIVE ENVIRONMENTAL CHARACTERISTICS OF ALTERNATIVE

In general, the environmental characteristics of this alternative would remain substantially as described elsewhere in this report (see Section III., Environmental Setting). Present levels of traffic; parking demand; transit demand; air pollution; noise; fire and earthquake hazard; energy consumption; on-site employment; public service demand; and wind, shadow and visual effects now attributable to the buildings on the site would continue to exist.

This alternative would eliminate the effects of the proposed project upon historic resources, as no demolition would be required, and would lessen other employment-related effects identified above, as approximately 890 fewer people would be employed at the project site. Initial adoption of alternative would also have eliminated the need to dislocate tenants who occupied the structures in early 1980.

SPONSOR'S REASONS FOR REJECTING ALTERNATIVE/1/

The project sponsor has rejected this alternative because the five existing buildings contain less than 20% of the allowable floor area at the project site, violate the parapet safety provisions of the building code, and, in the

opinion of the project sponsor, have inefficient floor sizes and configurations for modern office use, are spatially wasteful, would fail to optimize return on investment, and represent a seismic safety and fire hazard.

B. ALTERNATIVE 2: 453-FT. OFFICE TOWER PRESERVING THE CALIFORNIA PACIFIC AND STEIL BUILDINGS

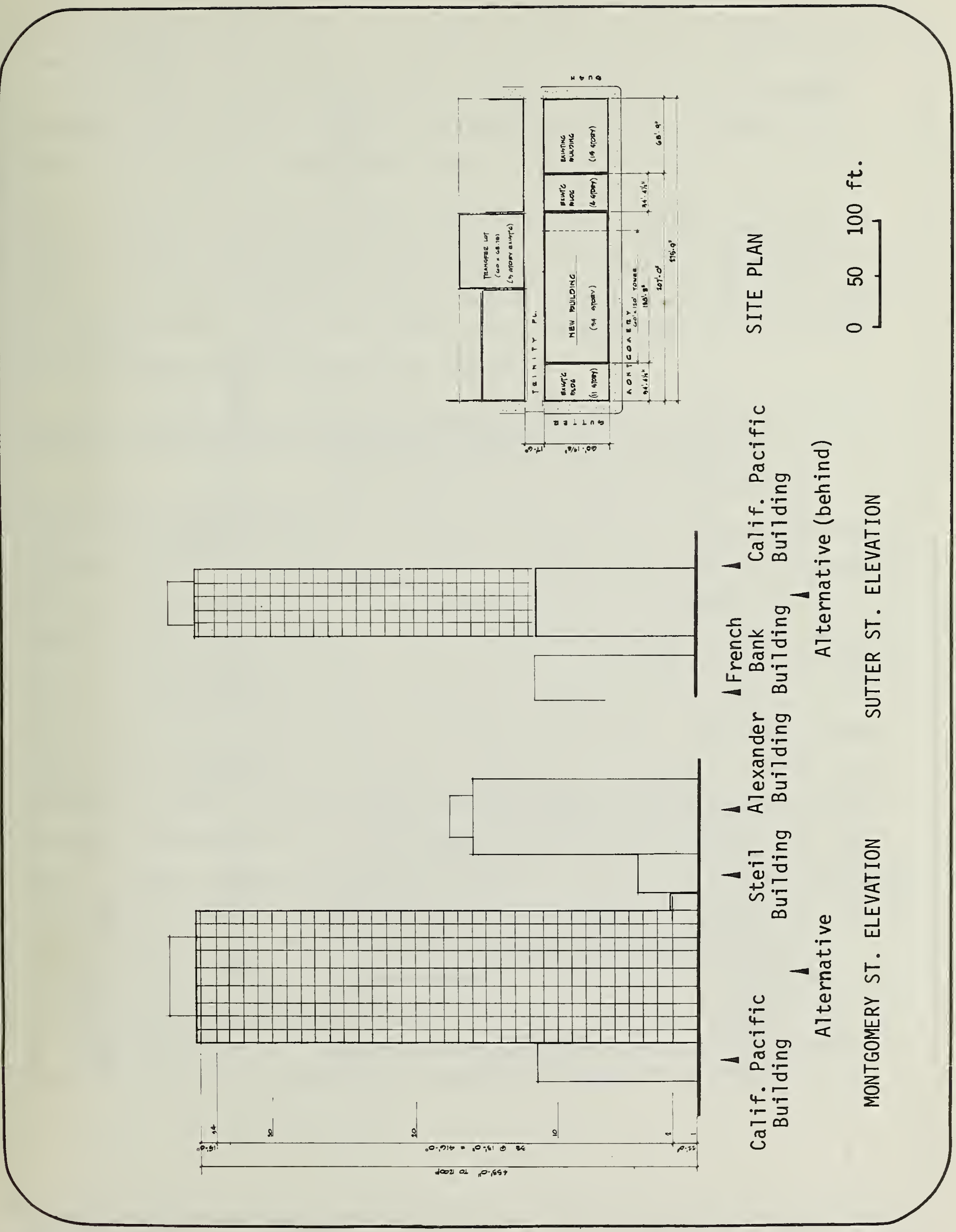
DESCRIPTION OF ALTERNATIVE

This alternative would consist of a 34-story, 475-ft. office tower with street-level retail uses (see Figure 26). The tower would approach the 500-ft. height limit at the project site, would contain about 242,000 gross sq. ft. (GSF), 35,000 GSF less than the proposed project, and would be approximately 70 ft. higher. Its maximum exterior dimension on its Montgomery St. frontage would be 120 ft., 50 ft. less than that of the proposed project; its maximum horizontal dimension parallel to Sutter and Bush Sts. would remain 60 ft. (see Appendix F-1, page 345).

This alternative would permit retention of the California Pacific Building (at Sutter and Montgomery Sts.), located at the eastern end of the architecturally important 100-block of Sutter St.; and the Steil Building (141-145 Montgomery St.), which has also received recognition for architectural merit (see Figures 10, 11, 12 and A-1, pp. 23, 24, 26 and 171). Like the proposed project, the floor area of the alternative, including that of the buildings to be retained, would approach the maximum allowable at the site.

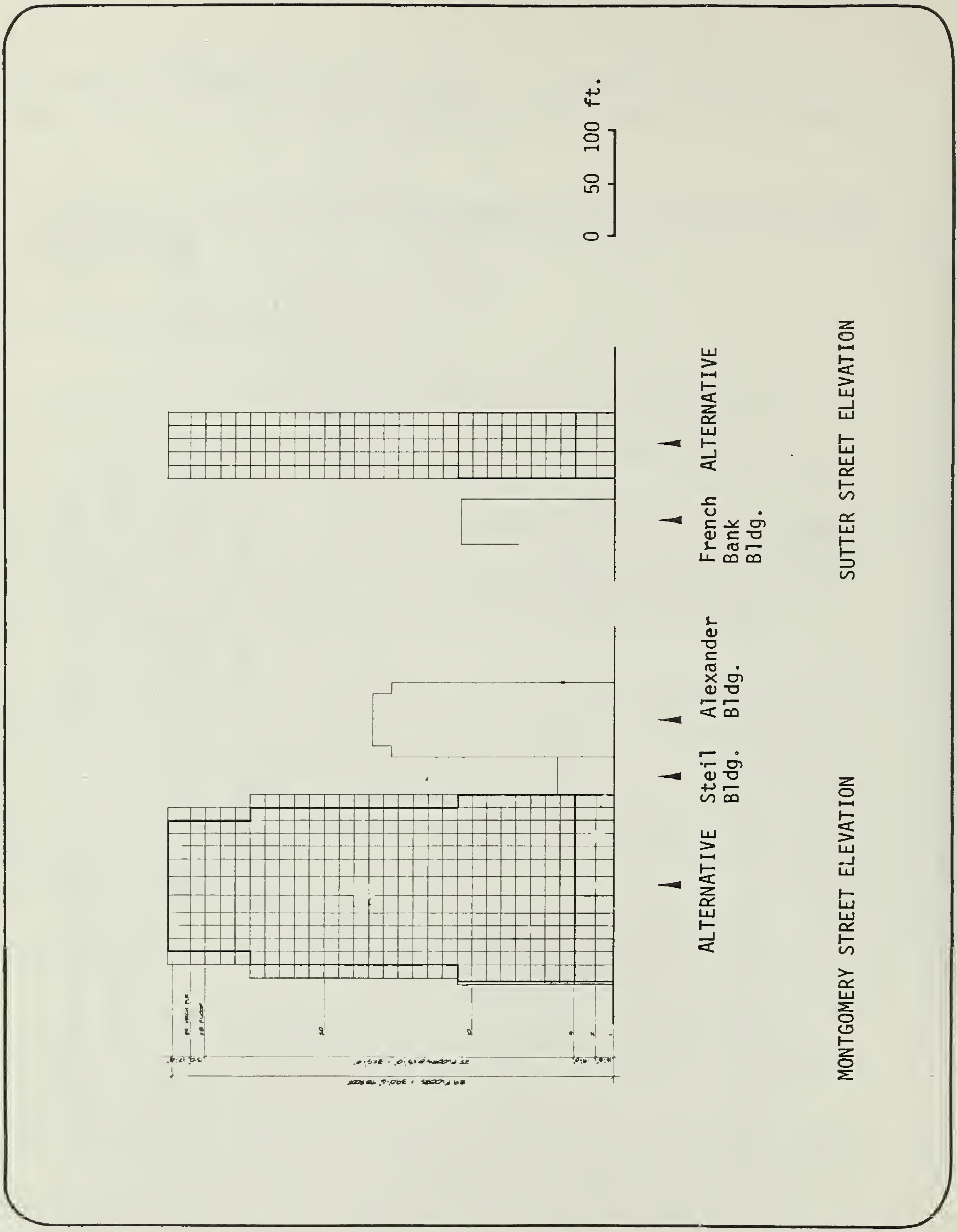
DISTINCTIVE ENVIRONMENTAL CHARACTERISTICS OF ALTERNATIVE

This alternative would avoid demolition of two historic structures, the California Pacific Building and the Steil Building, each rated "B" in the Heritage Survey, but would still require the demolition of three others, 133-137 Montgomery St., the Wilson Building, and 109-123 Montgomery St., each rated "C" in the Heritage Survey. This alternative would also have avoided the need to dislocate about 35 tenants, employing about 68 persons, who occupied the site in early 1980.



SOURCE: William Schuppel & Associates

FIGURE 26: ALTERNATIVE 2 PLAN AND ELEVATIONS



SOURCE: William Schuppel & Associates

FIGURE 26A: ALTERNATIVE 2A ELEVATIONS

The alternative would result in a slender building form which, because of its greater height, would be more prominant in the City skyline. Wind, shadow, and other urban design effects would be similar to those of the proposed project, except that the elimination of side setbacks would eliminate the opportunity to provide public open space on the project site.

Levels of most employment-related impacts, including traffic generation; parking demand; transit demand; air pollution; noise; energy consumption; and most public service demands would be similar to those of the proposed project, as the total floor area on the project site (including that of the buildings to be retained) would be essentially the same.

SPONSOR'S REASONS FOR REJECTING ALTERNATIVE/2/

According to project architects, this alternative would result in small typical floor areas (7,200 sq. ft.) which, because of the number of elevators required for its height and because of the greater ratio of building perimeter to floor area, would result in inefficient energy use and would fail to optimize return on investment. The existing buildings that would be retained also have relatively small floor areas. Because the floor-to-floor heights in the old buildings would not align with those required in new office construction, the old and new floors could not be readily combined, and thus would probably be required to include independent life safety, elevator, and mechanical systems. Project sponsor estimates that costs of reinforcing for the older structures would be approximately $2.5 million, exclusive of life safety systems and interior space development. Construction of six additional floors would result in a construction period that would be longer than that of the proposed project due primarily to scheduling requirements of steel erection. The Foundation for San Francisco's Architectural Heritage has estimated that reinforcing for the California Pacific building would cost $1.8 to 2.3 million, based on information about the existing structural systems shown on the original construction drawings (see Appendix R-3, page 261).

SUBALTERNATIVE 2A:

This alternative would retain the Steil Building facade; the California Pacific Building at Sutter and Montgomery Sts. would be demolished as well as the other three buildings on the site. The office tower would include the corner location at Montgomery and Sutter Sts. The tower would be designed with two setbacks on the Sutter St. elevation, one at the eleventh floor and one at the 25th floor (see Figure 26A). The building would be 28 stories tall and about 273,000 sq. ft. (see Appendix F-2, page 346).

This alternative design is proposed to provide a facade which would maintain the scale of the structures on Sutter St. between Montgomery and Kearny Sts., an architecturally important grouping including the Hallidie Building which is rated "A" in the Heritage Survey.

This alternative addresses one urban design feature, the scale of the structures along Sutter St. The style and historic quality of the California Pacific building, the corner point of this block of structures, would not be preserved with this alternative. The building would have approximately the same number of square feet as other high rise alternatives and other than design would have the same impacts as the proposed project.

C. ALTERNATIVE 3: 415-FT., STEPPED OFFICE TOWER

● DESCRIPTION OF ALTERNATIVE

This alternative would consist of a 29-story, 415-ft. office tower with street-level retail uses. The structure would occupy about the same site area as the proposed project and would contain the same floor area. It would be

about 10-12 ft. higher than the proposed project, but would have identical maximum horizontal dimensions of 60 ft. by 170 ft. (see Appendix F-3, page 347).

The principal apparent difference between the proposed project and Alternative 3 would be that the alternative would be stepped back from Sutter St. at its upper five levels (see Figure 27, page 150).

DISTINCTIVE ENVIRONMENTAL CHARACTERISTICS OF ALTERNATIVE

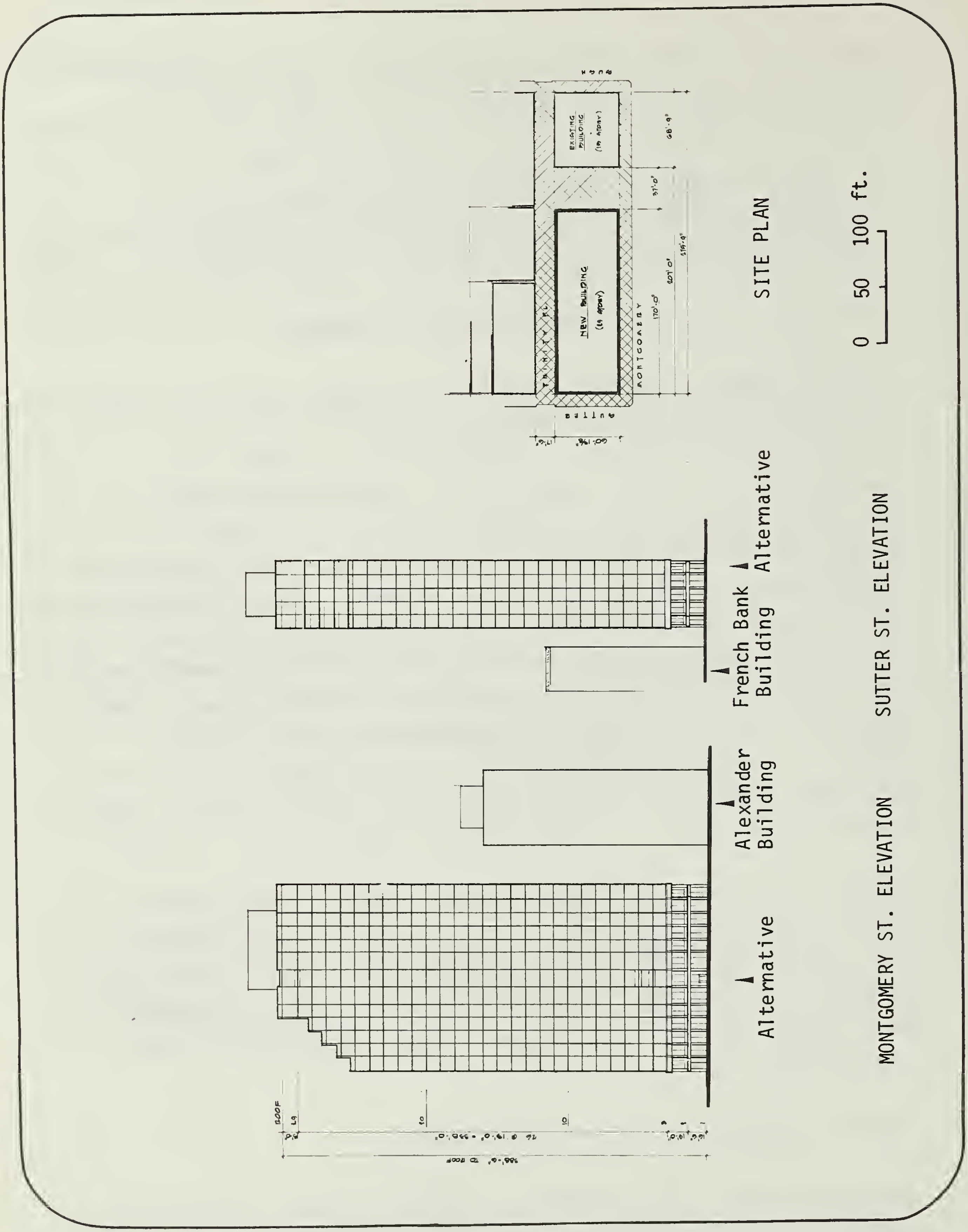
Like the proposed project, Alternative 3 would require demolition of the six older structures which occupy the project site.

The principal distinction between the project and this alternative would be the stepped feature of the alternative which would reveal more of the historic Hunter-Dulin Building (111 Sutter St.) when seen from some vantage points along the east side of Montgomery St. to the north, would help differentiate the structure in the City skyline, and would help to relate the scale of the structure to adjoining smaller and older structures to the immediate south and west. The stepped feature of the upper levels of the tower would probably preclude a traditional design for the architectural termination of the structure and would thus contrast with architectural features of surrounding buildings. Street-level wind and shadow effects would be similar to those of the proposed project.

Levels of most employment-related impacts, including traffic generation; parking demand; transit demand; air pollution; noise; energy consumption; and most public service demands would also be similar to those of the proposed project, as the total floor area on the project site would be essentially the same. Fiscal effects and dislocation of on-site tenants would also be essentially the same.

SPONSOR'S REASONS FOR REJECTING ALTERNATIVE/2/

The project sponsor has rejected this alternative because it would result in relatively small floors and inefficient use of space at the upper five levels of the tower, would increase seismic design and construction costs, and in the



SOURCE: William Schuppel & Associates

FIGURE 27: ALTERNATIVE 3 PLAN AND ELEVATIONS

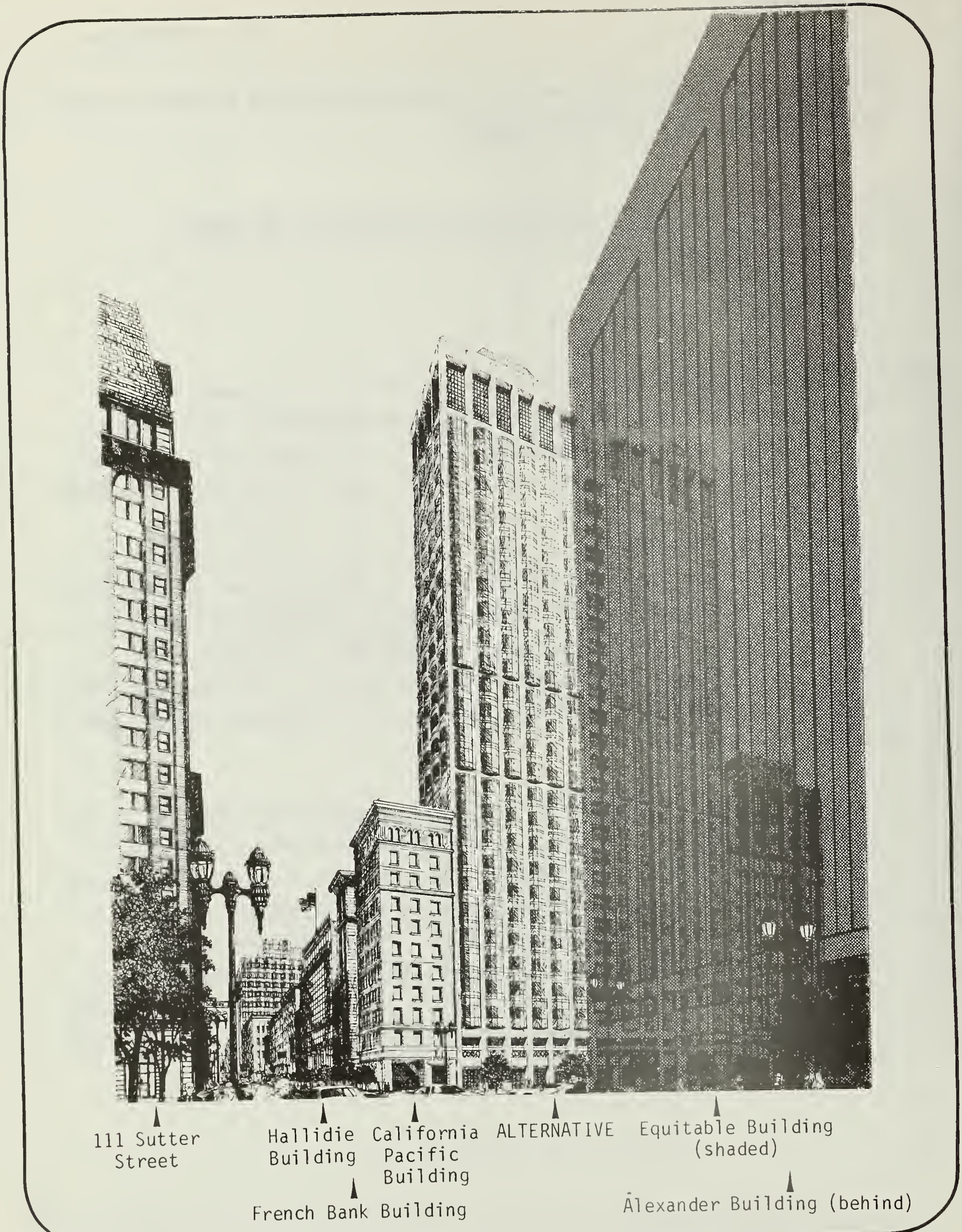
opinion of the sponsor, would result in a design that would be architecturally inferior to that of the proposed project.

D. ALTERNATIVE 4: 380-FT. OFFICE TOWER PRESERVING THE CALIFORNIA PACIFIC BUILDING

DESCRIPTION OF ALTERNATIVE

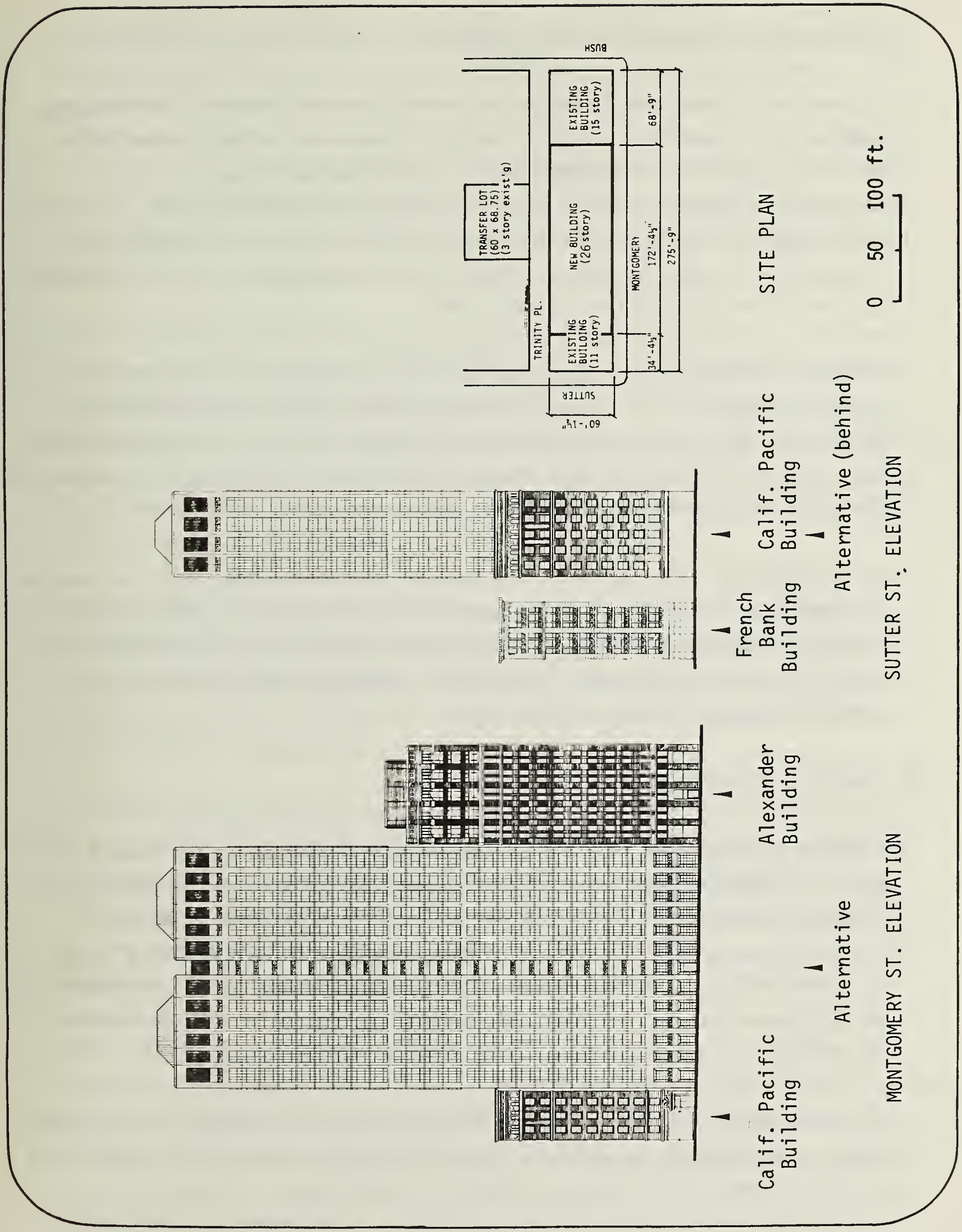
● This alternative would consist of a 26-story 380 ft. office tower with street-level retail uses. The alternative would occupy the entire building site, except for the portion now occupied by the California Pacific Building, which would be retained (see Figures 28 and 29, pages 152 and 153). The tower would be about 25 ft. lower than the proposed project, but would have identical horizontal dimensions of 60 ft. by 170 ft. The new construction would contain approximately 262,000 GSF which together with the retained floor area of the California Pacific Building, 8,256 sq. ft., would yield a total floor area for the project site of about 270,000 GSF. This total would approach the maximum allowable floor area under this plan configuration, and would be about 7,000 GSF or 2.5% less than that of the proposed project (see Appendix F-4, page 348).

The alternative would connect with the California Pacific Building via stairs and/or ramps at the latter's second, third, fifth, seventh and ninth floors. The intervening floors of the California Pacific Building would be removed and the structure would be reinforced to conform to current seismic safety standards of the San Francisco Building Code. The ground floor would be converted to a pedestrian arcade by removing existing nonstuctural walls and windows, paving pedestrian surfaces with brick, and reinforcing and remodeling the arcade interior as appropriate. The alternative would abut, but would not connect with the Alexander Building to the north.



SOURCE: William Schuppel & Associates

FIGURE 28: VIEW OF ALTERNATIVE 4 FROM SUTTER AND MONTGOMERY STREETS (REVISED)



SOURCE: William Schuppel & Associates

FIGURE 29: ALTERNATIVE 4 PLAN AND ELEVATIONS

DISTINCTIVE ENVIRONMENTAL CHARACTERISTICS OF ALTERNATIVE

Alternative 4 would avoid demolition of the California Pacific Building, but would require demolition of the five other structures on the project site, 25 Trinity St., 133-137 Montgomery St., the Wilson Building, 109-123 Montgomery St., and the Steil Building, which are considered to be of lesser architectural importance. This alternative would also have avoided the dislocation of approximately 31 tenants, and 46 employees, who occupied the California Pacific Building in early 1980.

Wind, shadow and visual effects would be similar to those of the proposed project, except that the local visual prominence of the project would be reduced, as the alternative would not occupy a corner site. The alternative would result in interruption or blockage of views, light and air to windows on the south facade of the adjacent Alexander Building.

As the total on-site floor area and uses of this alternative would be similar to those of the proposed project, levels of most employment-related impacts, including traffic generation, transit demand, parking demand, air pollution, noise, fiscal effects, energy consumption, housing demand, and most public service demands would also be similar.

SPONSOR'S REASONS FOR REJECTING ALTERNATIVE

Alternative 4 has been rejected by the project sponsor because it would have a smaller allowable floor area than would the proposed project; it would have limited windows on its north side; it would fail to optimize return on investment; and would block views, light and air to the south side of the Alexander Building. It would also require retention and costly improvement of the California Pacific Building, and removal of six of its eleven rentable floors.

Retention of the California Pacific Building would also prevent construction of an open, widened sidewalk area on Sutter St., and would block views of the southeast corner of the adjacent French Bank Building. A structural evaluation of the California Pacific Building, dated March 13, 1981, was

completed by Robert S. Gefken, structural engineer (Lic. No. S-1142). The evaluation describes the building as consisting '...of a steel frame supporting reinforced concrete slabs at the floors and roof. The beams, girders, and interior columns are fireproofed with concrete; whereas, the exterior steel columns are enclosed by unreinforced brick masonry. The blind wall on the north side of the building is reinforced concrete; however, the three other walls on Trinity, Sutter, and Montgomery Street are unreinforced brick.'

At the request of the engineer, the beam and column connections at the second floor were exposed in order to make an evaluation of the lateral connection. The only [earthquake-resistant] connections found were at the perimeter columns. The connections consist of an angle 5" x 3 1/2" x1/2" riveted to the top and bottom flange of the beam at the 5" leg; the 3 1/2" leg is riveted to the flange of the column. The web of the beam is connected to the column with one angle which is also riveted.

The only floor that has lateral capacity is the basement. There, the perimeter beams are connected to the columns with deep gussets that could develop some lateral resistance. The interior beams and columns in the basement are similar to those of the second floor, and do not contain any moment resistant connections.

In summary, the evaluation finds that the building has little lateral capacity in view of the weak beam to column connection. The in-fill walls around the perimeter are unreinforced brick, and would be an 'extreme hazard' if they fell during a large earthquake. Therefore, the building may be constructed to be 'very weak laterally, and would require a major bracing system in order to make the building safe for future quakes.'

Cahill Construction Company estimates that the total additional capital required to incorporate the California Pacific Building into the project would be approximately $0.7 million, and the annual net loss in income due to the alternative, including reduced rents in some areas of the buildings, loss of

square footage, and debt service on additional capital, would be approximately $1.0 million, relative to the proposed project (see Appendix R-1, page 239).

Members of the Foundation for San Francisco's Architectural Heritage reviewed the financial information supplied by the Cahill Construction Company and prepared another analysis with a different result. Heritage encourages the choice of a project which would retain the California Pacific Building. Using Cahill Construction Company's full construction costs and using net rental income based on conservative market estimates for 1983 occupancy, Heritage estimates that the renovated California Pacific Building would show a reasonable profit of 25% annually for the project sponsor. Heritage also suggests that the sale of the California Pacific Building would be profitable for the project sponsor, and that the 101 Montgomery project would be economically successful with or without the California Pacific Building (see Appendix R-2, page 249).

- SUBALTERNATIVE 4A

This subalternative would be similar to Alternative 4, except that the California Pacific Building would be rebuilt and refurbished as an independent building with a new structural frame, new elevators, stairs, smoke-proof enclosures, and other life safety features. This subalternative would retain all eleven floors of the California Pacific Building, removing only the existing mezzanine. The subalternative would reduce the height and floor area of the proposed tower by three floors, to comply with FAR requirements (see Appendix F-5, page 349).

As total on-site floor areas and uses under this subalternative would be similar to those of both Alternative 4 and the proposed project, most employment-related impacts would also be similar.

The project sponsor has rejected this subalternative because, according to the sponsor's estimates, it would result in first-costs that would be about $638,000 greater than those of the proposed project, and annual revenues that would be $1.1 million less than those of the proposed project (see

Appendix R-1, page 239). Heritage estimates that renovation of the California Pacific Building would not reduce revenues (see Appendix R-2, page 249), and that reinforcing for the building would result in first costs of about $355,000 or less, possibly fully offset by savings of less new construction (see Appendix R-2, which compares sponsor's estimate of $2.5 million to renovate the building with Heritage's estimate of $1.9 to 2.3 million).

- SUBALTERNATIVE 4B

This subalternative would be similar to Subalternative 4A, except occupancy of the California Pacific Building would be permanently abandoned and the building would not be rebuilt or reinforced except for the required parapet strengthening. The subalternative would reduce the height and floor area of the proposed project by one floor, to comply with FAR requirements (see Appendix F-6, page 350).

The urban design and employment-related impacts of this alternative would be similar to those of Alternative 4, except that the lack of reinforcing in the California Pacific Building would continue to represent a seismic hazard to passersby.

The project sponsor has rejected this subalternative because, according to the sponsor's estimates (see Appendix R-1, page 239), the initial reduction in first costs of $1.05 million relative to the proposed project would be more than offset in the second and subsequent years of project operation by annual revenues that would be about $744,000 less than those of the proposed project.

- SUBALTERNATIVE 4C

This subalternative would retain the three-story Domino Club Building on Trinity St. for the present. The office building proposed for Montgomery Street could be any of the tower alternatives or could be the proposed project. The allowable floor area for a building on the Domino Club site is 57,750 sq. ft. at the 1981 FAR of 14:1. Up to one half of this square footage is proposed and is permitted to be transferred to the project site across

Trinity Street. The remaining one half would permit a seven-story building or a total of 28,875 sq. ft. on the Domino Club site, exclusive of bonuses.

When or if the project sponsor decided to build on the Domino Club site, the existing structure would be demolished at that time. The Domino Club could relocate, negotiate for space in the new building, or go out of business.

The buildings adjacent to the Domino Club Building to the north on Trinity St. are three-to-four stories in height. Buildings to the south, facing Sutter St. are over ten stories tall. A seven-story building on the Trinity St. site would not block views from the three adjacent buildings.

Trinity St. is an alleyway that serves primarily as a pedestrian passageway. Eliminating the proposed service parking and loading area and retaining the existing Domino Club Building could reduce service vehicle traffic, congestion and vehicle-pedestrian conflicts on Trinity St. Construction of a seven-story building on the site at some time in the future would increase pedestrian and vehicular traffic on Trinity Street; any increases on surrounding streets would not be measurable over the existing situation.

E. ALTERNATIVE 5: RESTORATION AND REMODELING OF EXISTING STRUCTURES

DESCRIPTION OF ALTERNATIVE

Alternative 5 would involve restoring, remodeling, and reinforcing the existing buildings on the project site (see Figures 10 and A-1, pp. 23 and 171. The alternative would contain approximately 65,000 GSF, about 212,000 less than the proposed project, and would house retail uses at street level and office uses on its upper floors.

DISTINCTIVE ENVIRONMENTAL CHARACTERISTICS OF ALTERNATIVE

Alternative 5 would avoid demolition of all five historic structures on the project site and instead would upgrade them and extend their economic lives.

Under this alternative, tenants who occupied the site in early 1980 would have to be dislocated, at least during the construction period, and all tenants would be subject to substantially higher rents once the project were complete.

Wind, shadow, and visual effects would be essentially unchanged from those which presently exist, except that exterior cosmetic renewal of the structures would presumably enhance their visual quality.

As total on-site floor areas and uses under this alternative would be similar to those which now exist, levels of most employment-related impacts, including traffic generation, transit demand, parking demand, air pollution, noise, energy consumption, housing demand, and most public service demands, would remain similar to those described in Section III., pp. 22-62. Net public revenues would be increased due to an increase in market value at the site. No estimate of this increase is available, however, as no construction cost estimate has been prepared.

SPONSOR'S REASONS FOR REJECTING ALTERNATIVE/1/

Alternative 5 would provide less than 25% of the allowable floor area at the project site. In addition, life safety, seismic reinforcing, and other

current code requirements would require building improvements that could not be economically justified, according to the project sponsor.

Because the five contiguous buildings on the site have different heights and floor levels, each would be required to function independently (at least at upper building floors), resulting in wasteful duplication of interior mechanical, structural, and circulation systems, and inefficient use of floor space.

F. ALTERNATIVE 6: COMBINED OFFICE AND RESIDENTIAL USE

DESCRIPTION OF ALTERNATIVE

Alternative 6 would consist of a structure that would occupy the same site and building envelope, and contain about the same gross floor area, as the proposed project. It would, however, contain housing as well as office and street-level retail uses, as shown below:

- Housing: about 62,100 GSF (48 units at 1,300 GSF each) occupying floors 23-28 (22% of total GSF)
- Office: about 215,500 GSF occupying floors 2-27 (75% of total GSF)
- Retail: about 7,800 GSF occupying the first floor (3% of total GSF)

Like the proposed project, this alternative would include a subsurface parking area containing approximately 15 spaces. (As one space would be required for each four residential units, the parking area would be required to contain a minimum of 12 spaces.)

DISTINCTIVE ENVIRONMENTAL CHARACTERISTICS OF ALTERNATIVE

Like the proposed project, Alternative 6 would require demolition of the five contiguous historic structures which now occupy the project site and would have required dislocation of all tenants and employees who occupied the project site in early 1980.

Wind, shadow, and visual effects of the alternative would be similar to those of the proposed project, except that the possible inclusion of balconies for some or all of the residential units would provide additional visual differentiation at the upper levels of the tower.

- The principal distinguishing characteristic of this alternative would be its provision of housing. As the housing units would presumably sell for at least $250,000, it may be assumed that their residents would consist primarily of upper- and upper-middle income households whose principal income earner(s) would work downtown, perhaps even in the building itself. Under this alternative daily building occupancy would be about 90 percent that of the proposed project and would include about 100 residents. Because the building residents would probably generate fewer commute-related impacts than would the office workers, the overall impacts of this alternative on traffic, transit and parking demand (and associated fuel consumption, noise and air pollution levels) would probably be somewhat less than 90 percent of the levels attributable to the proposed project. The alternative would also contribute to the City's housing stock, currently in short supply.

- Residential use at the project site could extend the hours of active use of neighboring service and retail facilities. The alternative would also expose its residents to the environmental conditions of the downtown area, including greater levels of traffic, noise, and air pollution than are common in most outlying residential areas; and reduced access to some residential services, including grocery shopping, schools, and recreation and community programs.

The fiscal implications of this alternative are difficult to project, but would probably be similar to those of the proposed project, as revenue gains attributable to a higher assessed project value (due, in turn, to higher construction costs, see reasons for rejection below), might be offset by possible increased service costs attributable to the introduction of a residential use in a predominantly commercial/office business area.

SPONSOR'S REASONS FOR REJECTING ALTERNATIVE

The inclusion of residential units in the proposed project would require installation of additional elevators, security systems, plumbing, wiring and related services that would increase construction costs, would fail to optimize return on investment, and reduce productive floor areas.

Most distant views of the Bay from the residential units would be blocked by neighboring taller structures, thereby limiting the attractiveness and marketability of the units. Marketability would also be limited by a lack of immediately available residential services, including grocery and household shopping, schools, and community and recreation programs.

G. ALTERNATIVES NOT ADDRESSED

A possible alternative which would contain a higher number of residential units would have general environmental characteristics similar to those described under Alternative 6, except that commuter traffic, transit and parking demand, and associated fuel consumption, noise and air pollution levels, would be further reduced; and a greater number of project residents would be exposed to conditions of the downtown environment and reduced access to residential services.

The project sponsor has rejected consideration of this possible alternative for reasons similar to those for which it rejected Alternative 6. For this possible alternative its rejection is stronger, however, as construction and maintenance costs would be even higher, and productive floor areas and unit marketabilities even less.

Two additional alternatives were considered for inclusion in this Draft EIR, but were dismissed as infeasible for reasons discussed below:

- An alternative that would comply with the existing moratorium on floor area bonuses is not addressed because the project has been exempted from the moratorium by the City Planning Commission and Board of Supervisors.

- An alternative that would incorporate the facades of the five existing buildings on the project site is not addressed because the buildings have different heights, floor levels and floor-to-ceiling heights which would require that the new construction behind the facades have some degree of functional and structural independence, resulting in costly duplication of building systems; would require loss of productive floor areas due to

additional structural and reinforcing requirements; and would result in an architecturally fragmented structure with five dissimilar base level facades topped by a modern tower of undetermined design. (An alternative addressing remodeling of existing structures is addressed, however; see Alternative 5.)

NOTES - Alternatives

/1/ J. Peter Cahill, Cahill Construction Company, personal communication, June 9, 1980.

/2/ William Schuppel and Associates, undated memorandum, April 1980.

VIII. IRREVERSIBLE ENVIRONMENTAL CHANGES DUE TO THE PROJECT

Demolition of the five buildings that occupy the project site, the California Pacific Building, 109-123 Montgomery St., the Wilson Building, 133-137 Montgomery St., and the Steil Building would constitute an irreversible environmental change. Construction of the project would create wind, shadow and visual effects which would be essentially irreversible throughout the life of the project. Project construction would also consume nonrenewable resources including approximately 12,000 gallons of fossil fuels.

IX. SUMMARY OF COMMENTS AND RESPONSES

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A. INTRODUCTION

This section contains summaries of the public comments received on the Draft Environmental Impact Report prepared for the proposed project at 101 Montgomery St., and responses to those comments.

All substantive spoken comments received at a public hearing before the City Planning Commission on February 19, 1981, and all substantive written comments received during the public review period from January 16, 1981 through February 19, 1981, were reviewed and summarized in the form of edited quotations.

The summarized comments and responses are grouped by subject matter, and each group of comments is followed by a corresponding group of responses. In general, the order of the responses under each topic follows the order of the comments under that topic. As the subject matter of a topic may overlap that of other topics, the reader must occasionally refer to more than one group of Comments and Responses to review all information on a given topic. Where this occurs, cross-references are provided (e.g. "See also Topics 18 and 31").

The comments and responses are incorporated into the Final EIR as Section IX. Text changes resulting from comments and responses are included in the Final EIR, as indicated in the responses.

B. LIST OF COMMENTERS

Ms. Ina Dearman, Acting Chairperson
Ms. Susan Bierman, Member
Mr. Norman Karasick, Member
Dr. Yoshio Nakashima, Member
Mr. Charles Starbuck, Member
City Planning Commission

Gray Brechin
The Foundation for San Francisco's Architectural Heritage

Howard Bromberg
President
International Computer Technology

John Elberling
San Franciscans for Reasonable Growth

Howard L. Goode
Director, Planning and Analysis
Bay Area Rapid Transit District

Sue Hestor

Sue Hestor (for Carl Imparato)

Susan Hogan
The Graphics People

John Jerome
President, Highland West, Inc.
Metropole Restaurant

Jonathan Malone
Secretary
Landmarks Preservation Advisory Board

John West
District Director
California Department of Transportation
(by R.W. Sieker, District CEQA Coordinator)

C. SUMMARY OF COMMENTS AND RESPONSES

1. OBJECTIVITY AND AVAILABILITY OF INFORMATION

COMMENT

Sue Hestor (for Carl Imparato): "There seems to be an awful lot of...'This information is not available, so therefore we will not estimate it' [in this EIR]. That really is not justifiable at this point."

RESPONSE

Information presented in the EIR is the best known to be available at the time of EIR preparation. Where the available information is incomplete, or otherwise subject to limitations, the authors have attempted to identify these limitations and place appropriate qualifications upon any conclusions drawn from it. Where necessary and possible, new base data have been obtained by conducting on-site research. Where possible, estimates have been made based on the best information available; it would not be appropriate to make estimates where good base data cannot be obtained.

2. SPONSOR'S OBJECTIVES

COMMENT

Sue Hestor: "Starting with Page 8, I have a question. The sponsor's objective is to realize a reasonable return on investment. I want to know what a reasonable return is these days? Because...I think it's very different than a couple of years ago, and it may affect the amount of money that the sponsor has in his pot that we can tap for the kind of things that I want to see them pay for in the City."

RESPONSE

The project sponsor considers a reasonable return on investment to be "one percent more than the [prevailing] prime interest rate" (R. Cahill, telephone conversation, March 31, 1981). Theoretically, this rate of return would approximate the minimum necessary for the project to realize a profit under conventional variable rate financing.

3. PROJECT DESIGN

COMMENTS

John Elberling: "On...Page 13, we understand that Lot 26 across the alley is part of the site that's part of the FAR calculations, and it's somehow used for a loading dock. But there isn't any one of these diagrams that shows me how it fits into the project. I don't understand if there is some kind of

below-grade connection between the two sites. I don't understand if it's just going to be a walk-across access. I don't know anything about what's going to happen in Lot 26. There's no elevation. There's no rendering. Nothing shows how that lot will be redeveloped...it needs to be shown in this EIR."

Sue Hestor: "On Page 19, though it isn't labeled as such, I think that the 28th floor is their observation deck, and I am extraordinarily cynical about observation decks... Is this to be another...whatever you call the Tishman-Cahill building down at First and Market? Because if it's not in the EIR, I don't believe you have any information..."

RESPONSE

As indicated in Appendix F, DEIR page 344, the "Adjacent Lot" (Lot 26) contributes one-half of its area to the calculation of the overall basic allowable building area, as permitted in City Planning Code, Section 127.

As indicated on DEIR page 11, and as shown in Figure 7 on DEIR page 17, Lot 26 would serve as a surface loading area on Trinity St., opposite the project site. The loading area would be at grade level and would have no underground connection with the proposed building. The stairs shown on Lot 26 in Figure 7 would lead to an existing basement, which would be retained for storage.

The following has been added as paragraph 2 at DEIR page 11:

> "The proposed loading area in Trinity St. (Lot 26) would be screened with an ornamental iron fence for off-hours security. Access to the loading area would be provided through a rolling gate in the fence. Landscaped planters with a flowering hedge material would also be provided to screen views of the loading area from Trinity St."

No landscaping plans, elevations or renderings of the proposed loading area have been prepared.

The observation area at the 28th floor would be open to the public during normal business hours and would provide continuous access to the entire perimeter of the building, as shown in Figure 9 on DEIR page 19. Figure 9 has been modified to identify the observation deck more clearly.

See also Topics 4, 7, 9, 10, 30, and 31.

4. PROJECT RENDERING

COMMENT

John Elberling: "I want to start with Page 12 of the DEIR, which is the architect's rendering of the proposed project, and I want to ask two things regarding this rendering... You might notice that the Equitable Building at the northeast corner of Sutter and Montgomery has magically disappeared or else almost half the proposed building would be impossible to see.

"...I know the architect wants to show you what it looks like in concept. But since one of the major urban design questions of the project is the canyon and the impact that it's going to throw along Montgomery Street, the massing of bulk along Montgomery Street, it's really important to get an accurate visual representation of the project in the setting in which it will have to exist. Now, obviously, it can't be done from the perspective that the architect shows, and what's needed is a perspective from further on down Montgomery Street.

Gray Brechin: "The perspective drawing [on DEIR page 12] is misleading, since it gives the impression that there is a landscaped plaza where the Equitable Building is. This view is impossible. Some indicatiion of this fact should be given since, in reality, this will be an exceedingly dense intersection."

RESPONSE

Figure 3, DEIR page 12, has been revised to show the Equitable Building at the northeast corner of Sutter and Bush Streets (see attachment). The revised figure does show the relative height and mass of the project in relation to neighboring buildings to the north, west, south and east.

See Topic 7 for further discussion of "canyon effect".

5. FLOOR AREA CALCULATIONS AND BONUSES

COMMENTS

Gray Brechin: "[The setback on Sutter Street] appears to have been provided to gain a bonus which entitles the developer to at least an extra 7,600 square feet of floor space as cited on Page 64."

Sue Hestor (for Carl Imparato): "On Page 5 under mitigation measures -- this is in the summary section -- it is not explicit that by bonuses they are getting a 60 percent increase in the FAR, nor is it explicit that they are using as part of their calculations for their entitlement for FAR development rights for the undevelopable lot on Trinity Place. In fact, the fact of that lot I would add is kind of really neglected in this EIR. It gives them an awful lot in terms of height. But I don't think that's a buildable lot under code..."

Sue Hestor: "On Page 16, I have a problem with the innocuous way they kind of weave in what they are using, in fact, as bonuses. They weave them in as somehow they are giving the City a goody, a design amenity... It talks about sidewalks, setbacks, and things like that.

"...I think you should knock [out] the whole 10,000 [sq. ft. bonus for the observation deck.]"

"I have a further problem with this very cursory discussion of the building's bonuses in the EIR. You have to go all the way to the end to get the breakout, and I am again cynical about these bonuses.

111 Sutter Street | Hallidie Building | French Bank Building | PROJECT | Equitable Building (shaded) | Alexander Building (behind)

SOURCE: William Schuppel & Associates

● FIGURE 3: VIEW OF PROJECT FROM SUTTER AND MONTGOMERY STREETS (REVISED)

"...the second to the last page, 223. I question these bonuses, and I want to know if you know anything about this observation deck. I certainly don't know about it, and it's worth 10,000 square feet. I would like to know what the shortened walking distance is. What shortened walking distance, from where to where? Is that going from Trinity Place to Montgomery Street? I mean, if that is a walking distance, who in the world is going to go down Trinity Place when you run into a loading dock in the rear? That one has to go.

"I have serious questions on multiple building access. I mean, they have got to have these entrances anyway to get people in and out. I think you've got to take out No. 10 and No. 6 and seriously deal with No. 4. I think No. 4 is the nearest thing to a dumb bonus that you all have, and I don't think you're getting enough good out of this project to give them that dumb bonus."

RESPONSE

Floor area calculations and bonuses are shown in Appendix F, DEIR page 344; floor area bonuses are also shown on page 64. As indicated on DEIR page 30, the proposed project was explicitly exempted by the Board of Supervisors from the present moratorium on the use of floor area bonuses.

The original project plan called for an open plaza area on the north side of the project between the proposed tower and the Alexander Building. The bonus claimed for this side setback was 12,700 sq. ft. By moving the plaza area to the south side of the site, on Sutter St., both the plaza bonus and side setback bonus were reduced by a total of 5,151 sq. ft. (William Schuppel & Associates, memorandum, March 9, 1981). As suggested in Table 7, beginning on DEIR page 72, the setback is proposed for the Sutter St. side of the project in order to permit construction of a landscaped sidewalk plaza area and to reveal views of the southeast corner of the adjacent French Bank Building. See also Topic 31.

As indicated in Appendix F, DEIR page 344, the basic allowable building area without bonuses would be 203,147 sq. ft.; the allowable floor area with bonuses would be 277,193 sq. ft., an increase of 36%.

The bonus for shortened walking distance would be available for reducing walking distance between Montgomery and Trinity Sts. See Topic 3 for a discussion of the treatment of Lot 26, the proposed transfer lot on Trinity St.; and for a discussion of the proposed observation deck.

6. PROJECT CONSTRUCTION COSTS AND RENTAL RATES

COMMENTS

John Elberling: "On Page 20, there's a section on the cost of the project and the rents to be charged on the project. These numbers need to be updated because they're plainly unrealistic... Nobody that I am aware of can build high-rise office buildings for this low a price. The rule of thumb nowadays is at least a hundred dollars a foot total development costs which would be $25 million or more total costs. This number should be updated and made more accurate."

"...I don't know why the sponsor thinks they can only get $16 a foot for their space in rentals when on Page 36 further in the report they state that high-rise office buildings bring in from $18 to $30 a foot today in the downtown."

Sue Hestor: "Now, perhaps this company can bring in the building at a cost under what other people are doing because it's Cahill Construction, and they would presumably save some of the charges that they would pass on if they were doing the constructing for someone else and have experience and therefore know how to cut costs and do things in the most efficient manner. So perhaps their constructon budget is realistic."

"Page 20. I agree with John Elberling... Something is really funny with these financial projections... I'm not in the real estate rental business, but I'm wondering why they're pricing their building below the market... On Page 36, they tell you the office rental, the market in downtown San Francisco in similar buildings is $18 to $24 a square foot, but they are going to charge only $16 a square foot. Now, that must mean that Montgomery Street is now a depressed area and it's not as valuable as being at Battery and Market. Is that why it's down?

"I think that this is an underestimation in terms of rent, and it's also therefore an underestimation in terms of the profit that they're goint to make on the building. The revenue is in their figures $5.2 million per year in 1982.

"[If the construction budget is realistic] that means that their revenue is...about over 25 percent a year based on construction costs. I think this building is going to be a money maker."

RESPONSE

Expected construction costs and rents have been updated by the project sponsor. Paragraphs 2 and 3 on page 20 of the DEIR have been replaced with the following:

> "Project construction costs would be approximately $18,900,000 assuming commencement of construction in July 1981, including $16,500,000 for basic structure and $2,400,000 for interior finishes, but excluding tenant improvements which would be paid for by tenants. Additional project costs would include approximately $800,000 for design, engineering and environmental documentation; $2,302,000 for land; and $1,650,000 for interim financing for a total project cost of approximately $23,652,000.
>
> "Ground floor space in the project would rent on a net-net basis for approximately $28 per square foot per year; floor space on the upper floors of the building would rent on a net-net basis for approximately $18 per square foot per year. The gross rent would be $28.00 per square foot per year for upper floors from which would be deducted a 5% vacancy factor, operating expenses, lease commission and tenant improvement amortization--leaving a net-net rent of $18.00. If the tenant improvement costs of $2,100,000 were added to the above project cost of $23,652,000,

the construction cost per net rentable square foot would be $98.68 per square foot."

Footnote 3 on page 21 of the DEIR has been replaced with the following:

"/3/ R. Cahill, Cahill Construction Company, Inc., letter communication, February 24, 1981."

The rents quoted in the DEIR such as the $18 to $30 typical highrise rents referred to on page 36, are gross rents in 1980. Gross rents of $28 at the completion of this project are consistent with this range. Based on these new estimates, revenue estimates on pages 82-92 have been changed. Also, as a result of inflation, a downward revision of the general fund property tax rate, adoption of a new San Francisco budget, and other developments since the DEIR was prepared, other cost and revenue estimates have been updated on pages 39-45 and pages 82-92. These pages, showing revised rental and cost/revenue estimates, are available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde St., Room 318, San Francisco; the changes will be incorporated in the printed Final EIR. These changes do not affect the overall conclusions of the fiscal impact section of the DEIR. The changes raise revenues per square foot (in 1982-83) in the project from $2.17 to $2.21, lower them in the existing buildings from $1.71 to $1.70, and thus would make the project generate revenues 30% greater than the existing buildings, rather than 27% greater.

7. URBAN DESIGN

COMMENTS

John Elberling: "When listing the significant environmental impacts on Page 140 under urban design effects, they totally ignore what they're doing to Montgomery Street...this is the classic example of putting too much of a building into too confined a site...it's going to completely overwhelm Montgomery Street...they really should admit to the complete channelization of Montgomery Street..."

Gray Brechin: "...only at this one point on Page 63 is the issue of the actual importance of the 100 block of Sutter Street addressed as one of the finest in downtown San Francisco. I believe it was only in this section really that that was treated at all.

"There should be a more complete statement of the California Pacific Building's anchoring function in the Hallidie block and its complementary relationship with the French Bank Building in particular.

"Some indication should be given of project's effect on the Hallidie block [i.e. the north side of the 100-block of Sutter St.]."

RESPONSE

Revised Figure 3 (see Topic 4) indicates the relative height and mass of the project in relation to neighboring buildings to the north, west, south and

east. The degree of the "canyon effect" created along Montgomery and Sutter Sts. by nearby buildings may be inferred from Figure 14, DEIR page 28, which shows building heights in the vicinity of the project site. The following has also been added as paragraph 2, DEIR page 69:

> "As the proposed project would increase building heights and reduce the degree of facade diversity along the west side of the 100-block of Montgomery St., it would also increase the so-called 'canyon effect' in the project block."

The relative architectural importance of the "Hallidie Block" (i.e. the north side of the 100-block of Sutter St.), and the anchoring function served by the California Pacific Building in this block, are discussed on DEIR pages 22, 63 and 174; and may be inferred from the architectural ratings shown in Figure 12, DEIR page 26. The "complementary" relationship of the California Pacific Building to the adjacent French Bank Building may be inferred from these discussions, from Figure 12, and from Figure 11, DEIR page 24.

See also Topics 3, 10, 30 and 31.

8. ARCHITECTURAL PRESERVATION

COMMENTS

Gray Brechin: "I'm speaking for Heritage. We're mainly addressing the issues of preservation on the site.

"I'd like to hand out copies of the newsletter which we published in October which had pictures on the front cover of the California Pacific Building, since it will be demolished, and on Page 6 on the inside a photograph of what I refer to in the statement which I will pass out later as the Hallidie block which is the north side of the 100-block of Sutter Street which will be severely impacted by this project.

"We also in our latest newsletter...did a feature article on the retail shopping district of the downtown which has been proposed as a National Register historic district...

"In the Draft EIR on Page 63 it says, 'The Retail-Shopping District abuts the project site and is identified by the 1978 Heritage Inventory as eligible for listing on the National Register of Historic Places. The district includes the California Pacific Building which acts as an effective end point for the structures along the north side of Sutter Street. The [north side of the] 100-block of Sutter, which includes the Hallidie Building, is considered to be one of the most important streetfront architectural grouping in downtown San Francisco. The streetscape represents a capsule history of the architecture of the area. Removal of the California Pacific Building and construction of the project would change the architectural integrity of the Hallidie block.'

"I might add that it would severely compromise it rather than change it...

"In the Heritage inventory it is stated, '(The Retail-Shopping District is) the finest of San Francisco's National Register Districts in the quality of its architecture and the collective realization of the City Beautiful Movement. As a matter of fact, it is unique among districts of American cities in its architectural cohesiveness, its urban vitality, and its freedom from visually destructive intrusions.'

"Finally, one more statement from the Draft EIR, Page 8. These are the sponsor's objectives.

"'It is the sponsor's intent that the project complement both the existing highrise structures along Montgomery Street and smaller neighboring historic structures.'"

Sue Hestor: "I would emphasize on Page 22 the statement that's...in the middle of the paragraph, 'The latter four of these buildings -- and these are these little buildings on Market Street - constitute the last remaining small group of commercial structures on Market Street between Montgomery and California.' They are not only the last remaining small group in that area; they are one of the few last remaining groups anywhere in the C-3-O district. I think that should be added.

"...the picture across the page shows you what's at stake...it shows you what you see on the west side of the street with the exception of the tower at the corner of Market Street -- it's kind of a nice old building and the Sheraton Palace down at the end. If you look on the west side of the street by comparison -- and maybe you should have a comparison photo to show you how depressing Montgomery Street is on the east side of the street -- it's either unbelievably boring until you get up to Bush Street and you start having some nice buildings again. But I think that picture says a lot of things.

"I would point out on Page 22, the last paragraph under land use, it says, 'Among the taller buildings are lower and smaller buildings, most of which were built between 1906 and 1930...'

"On Page 26, I find the site numbers to be very blurry on the site. I can't read them..."

Commissioner Bierman: "I just think it is right to warn ahead of time that I am extremely concerned about losing both of these "B" buildings.

"That one building, the Steil Building, is a gem of a building.

"...and if there are mitigation measures like saving a "B" building and keeping that kind of space and maybe lessening some of the impact, then I think that should be a serious consideration by the developer."

Jonathan Malone: "On page 173, paragraph 4, line 2, the portion reading 'or historical associations were recorded' should be removed, as the survey did not intend to record historic associations for any building surveyed.

"The Landmarks Board, in reviewing the EIR on 101 Montgomery Street, noted on page 173 (Appendix A) the inclusion of the following statement

(2nd paragraph): '[as a "B"-rated building] it is, therefore, eligible for listing on the National Register but is of secondary importance for City Landmark status.'

"The Landmarks Board objects to this statement, as it is the policy of the Board not to consider 'B' rated buildings less important or of a lesser priority for landmarks designation. The Board stated this policy in its Work Program Priorities and Policy Statements adopted on December 17, 1980 (enclosed). The independent consultants working on the Heritage survey recommended at the time of the study that 'A' buildings be of highest, and 'B' buildings of secondary priority for landmark status. However, the Board did not adopt this point of view, and does not differentiate between 'A' and 'B' buildings in terms of eligibility for landmark listing."

RESPONSE

Architectural resources on and near the project site are identified and discussed on DEIR pages 22-25, 26, and 170-175. Architectural preservation and demolition attributable to the proposed project are addressed on DEIR pages 2, 63, 73 and 140. Mr. Brechin's citations from the DEIR are essentially accurate.

See Topic 16 for discussion of trends in sizes of Downtown commerical business sites and structures.

See Topic 7 for added text concerning reduction in facade diversity.

The reference numbers shown on Figure 12, DEIR page 26, have been clarified (see attached).

Project alternatives that would preserve one or more of the buildings on the project site are addressed on DEIR pages 145-148 and 151-158. See also Topic 30.

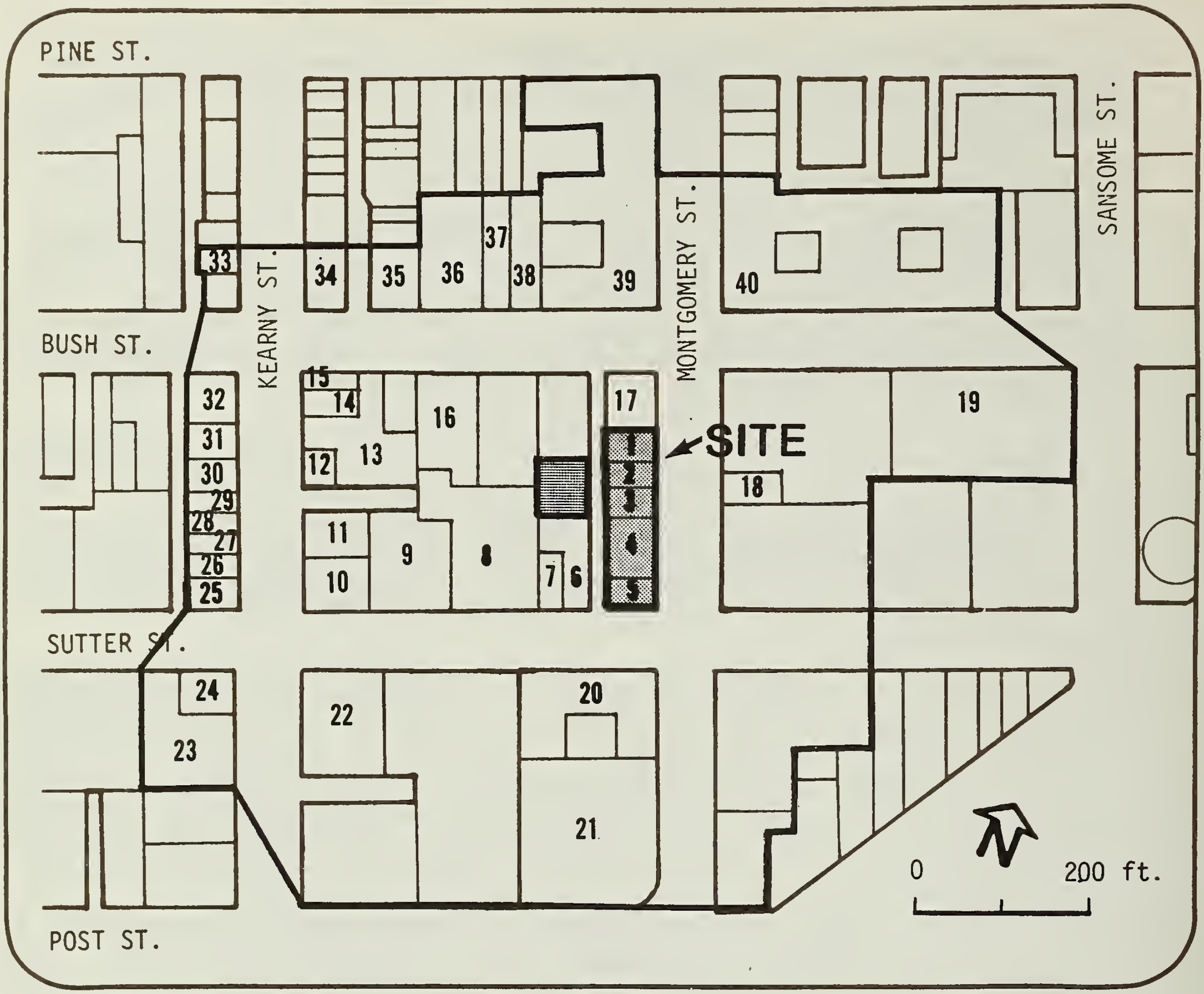
As requested by Mr. Malone (Landmarks Preservation Advisory Board), the words "...or historical associations"...have been deleted from paragraph 4, DEIR page 173. Sentence 4, paragraph 2, DEIR page 173 has also been changed to read as follows:

> "The Steil Building is therefore eligible for listing on the National Register of Historic Places and for designation as a City Landmark."

9. PROJECT RELATIONSHIP TO SAN FRANCISCO COMPREHENSIVE PLAN

COMMENT

Sue Hestor: "I again have a problem with the San Francisco Comprehensive Plan, which I presume they are talking about the Urban Design Plan though it's unexplicit which part of the Comprehensive Plan. If the Comprehensive Plan says that there should be no retail uses, no housing uses in this area, et cetera, that plan should be revised because I do not believe in single use that excludes retail, that excludes light manufacturing, that excludes housing



LEGEND

Building	S.F. DCP Inventory*	Heritage Survey*
Site:		
1 Steil Bldg., 141-145 Montgomery**	1-E2-1	B
2 133-137 Montgomery	0-A6-0	C
3 Wilson Bldg, 125-129 Montgomery	0-07-0	C
4 109-123 Montgomery	0-F1-0	C
5 California Pacific Bldg., 105 Mongomery**	1-07-2	B
Remainder of Site Block:		
6 French Bank Bldg., 108-110 Sutter**	3-07-4	A
7 126 Sutter	N.R.	C
8 Hallidie Bldg., 130-150 Sutter***	5-FB-5	A
9 Central Realty Bldg., 154 Sutter**	1-F1-2	B
10 200 Kearny**	3-F1-3	A
11 Robins Bldg., 220-226 Kearny	0-F1-0	C
12 Marston Bldg., 240-244 Kearny**	N.R.	B
13 Hotel Stanford, 246-250 Kearny	1-E2-2	C
14 260 Kearny	0-F1-0	C
15 Alto Bldg., 381-383 Bush**	1-F1-2	B
16 Financial Center Garage, 355 Bush	0-F1-0	B
17 Alexander Bldg., 149-157 Montgomery**	0-05-0	B
Fronting on Site Block:		
18 130 Montgomery**	2-F5-2	B
19 Standard Oil Co. Bldg., 225 Bush**	3-03-3	B

NOTES
*See Appendix A for discussion of surveys and ratings.
**Buildings of Historic and/or Architectural Importance
***Listed in National Register of Historic Places (February 1979)
N.R. = Not Rated

Building	S.F. DCP Inventory*	Heritage Survey*
20 Hunter-Dulin Bldg., 111 Sutter**	4-D4-5	A
21 Crocker Bank Bldg., 1 Montgomery**	3-D4-4	A
22 Sutter Hotel, 171 Sutter	1-F1-2	C
23 Bartlett Doe (Dubbs) Bldg., 153 Kearny**	1-07-1	B
24 Eyre (Argonaut) Bldg., 161 Kearny**	1-03-2	B
25 201 Kearny**	2-F1-2	B
26 209 Kearny	0-07-1	C
27 215-217 Kearny	0-07-1	C
28 219-225 Kearny	0-07-0	C
29 227-231 Kearny	0-07-0	C
30 237-241 Kearny	N.R.	C
31 McKay Bldg., 251-255 Kearny**	N.R.	C
32 Charleston Bldg., 251-155 Kearny**	0-F1-0	B
33 315 Kearny	N.R.	C
34 Shasta Hotel, 380 Bush	N.R.	C
35 Sam's Grill, 364 Bush	0-F1-0	C
36 S.F. Curb Exchange, 350 Bush**	3-01-3	A
37 344 Bush	1-07-1	C
38 334 Bush	1-07-1	N.R.
39 Russ Bldg., 235 Montgomery**	4-05-4	A
40 Mills Bldg. and Tower, 230 Montgomery***	4-03-4	A

Study Area Boundary

SOURCE: Environmental Science Associates, Inc.

FIGURE 12: HISTORIC STRUCTURES ON AND FRONTING PROJECT BLOCK (REVISED)

downtown is wise in 1981; and I think it is the obligation of the staff and the obligation of the Commission to amend the plan and to put that amendment on the agenda because...all of these EIR's go back to these out-of-date documents and use them as gospel to justify demolishing landmark buildings...

"On Page 64, it talks about all of these. They are implying that housing is an improper use downtown -- and housing should not be considered an improper use in 1981 downtown.

"I have further questions about whether the reference to the Comprehensive Plan has taken into consideration the housing element and the transportation element. I don't think so. It doesn't come through here.

"I have a question on Pages 72 through 75. Is the Urban Design Plan the current standard? I guess it is, and I have problems with it. It says San Francisco Comprehensive Plan, and then you read the footnote and it's the Urban Design Plan. The Urban Design Plan is ten years out of date at least, and I've got some problems with using that as a standard, and I have some questions about the impact on housing and transit in conjunction with that table."

Gray Bechin: "In none of the responses to policies for Conservation or Policies for Major New Development (pp. 73-75) is the issue of the project's impact on the Hallidie block addressed. This is especially important since the project will directly impact the most important block of an area which has been identified as meriting listing on the National Register of Historic Places as 'unique among districts of American cities in its architectural cohesiveness, its urban vitality, and its freedom from visually destructive intrusions.' (Splendid Survivors, p. 249) This omission is particularly notable in the response to Item 10 (pp. 74-75), 'Promote building forms that will respect and improve the integrity of open spaces and other public areas.' The project's setback on Sutter Street would compromise the streetfront integrity of the Hallidie block wall by creating a small 'plaza' at the eastern end of the block.

"The response to Item 7/Policy 6 (p. 73), 'Respect the character of older development nearby in the design of new buildings,' seems to be contradictory and needs further justification. As elsewhere in the DEIR, it states that '...the project tower would represent a departure in style and scale from neighboring older development to the west, and would represent a departure in style from neighboring older development to the north and south.' This means that the building would be inharmonious with 111 Sutter and with the Alexander and Russ Buildings on Montgomery. (Indeed, it is stylistically inharmonious with the Equitable Building to the east, which covers all bases.) Yet the response continues that 'Various design features and details, however, would complement older development nearby. These would include segmental, bowed bay projections with sculptured ornamental cornice bands, granite colored masonry exterior, iron ornamental railings, and the two-story connecting structure between the project tower and the Alexander Building.' While further justification is given in the response to Item 8/Policy 1 (p. 74), comparisons are made to unnamed 'older buildings' and 'neighboring buildings,' with the exception of a specific reference to the French Bank Building. That these design features actually 'complement older development nearby' requires a leap

of faith or an ignorance of the project neighborhood, since the older developments which they most nearly complement are 450 Sutter and the Holiday Inn Union Square, fully four blocks west of the project site."

Jonathan Malone: "On page 73, B.7, paragraph 2, line 8, use of the word 'would' is a subjective observation."

RESPONSE

Reference in the DEIR discussion of Land Use and Zoning impacts to general objectives of the San Francisco Comprehensive Plan are to various elements, particularly the Commerce and Industry and the Transportation Elements, as they pertain to land use in the project area. Objective 6 of the Commerce and Industry Element (adopted June 29, 1978 by City Planning Commission Resolution 8001) is to "Maintain and improve San Francisco's position as a prime location for financial, administrative, corporate, and professional activity." Policy 1 of this objective is to "Encourage continued growth of prime downtown office activities to long as undesirable consequences of such growth can be avoided." Policy 2 is to "Guide location of office development to maintain a compact downtown core so as to minimize a displacement of other viable uses." Policy 1 of Objective 2 of the Commerce and Industry Element pertaining to "Business Vitality" is to "Seek to retain existing commercial and industrial activity and to attract new such activity to the City."

Objective 1 of the Downtown Transportation Plan, amended by City Planning Commission Resolution 7647 on January 20, 1977 as a part of the Transportation Element of the Comprehensive Plan, is to "Maintain the type and level of transportation facilities and services appropriate to enhance the economic vitality of the Downtown Business and Shopping District." The discussion under this Objective states, in part, that "San Francisco is and will continue to be the regional center for finance, corporate and governmental administration, retailing, entertainment and business services related to these sectors of the economy... The proper functioning of downtown is dependent upon compactness of development, strength of internal accessibility,and convenient access to downtown from other parts of the region and the world."

Rather than quoting these and other policy statements in the Comprehensive Plan, which are general in their applicability to this specific project, specific, pertinent quotes from the City Planning Code (Part II, Chapter II of the San Francisco Municipal Code) were cited in the EIR in the interests of brevity.

The Comprehensive Plan does not say that retail and housing uses should be discouraged in the Downtown area: both uses are permitted in the C-3-0 district, in which the project is located, by Sections 218 and 215 of the City Planning Code.

DEIR page 64, paragraph 1, sentence 2 has been deleted, as a policy determination as to whether housing constitutes a use "related" to the Downtown Office District remains under consideration.

Reference to the Transportation Element of the Comprehensive Plan is made in the DEIR in the Setting section on Transportation, Circulation, and Parking, at pages 45 and 46. The Transportation Plan is general in its application. The description and analyses in the transportation sections of the EIR are based on guidelines mandated and uniformly applied by the Office of Environmental Review to all projects in the Downtown area. These guidelines are derived in part from general policies of the Transportation Element but are project-specific in their application.

The Housing Element of the Comprehensive Plan was adopted by the City Planning Commission on December 11, 1980 by Resolution No. 8790, after the research and writing of the DEIR had been completed. The Housing Element comprises two parts. The first part is the Residence Element of the Comprehensive Plan as adopted by City Planning Commission Resolution 7417 on December 11, 1975. This element was considered in the preparation of the DEIR, but it was found not be be applicable to an office building in the Downtown core. The second part of the Housing Element consists of a Background Data and Needs Analysis and a report on Implementation Programs and Activities. This latter document contains a policy (Policy 2 (2nd Part)), page 10, which is to "Encourage Multiple Residential Development in Conjunction with Commercial Uses in the Downtown Commercial Area." The discussion under the Policy statement declares that: "as part of a study of zoning controls guiding downtown conservation and development, various techniques to encourage residential development are being studied. The Department of City Planning is exploring the following:

1. Zoning areas close to the central business district for mixed office-residential development

2. FAR bonuses for including housing in office building construction

3. Tying approval of new office development to housing production"

The third technique has been applied by the City Planning Commission in various ways in recently approved Downtown development projects.

As noted above housing is permitted in the C-3-O District by the City Planning Code. Under the interim moratorium on the use of bonuses in the C-3-O district, which was adopted by Board of Supervisors Resolution No. 240-80, effective July 1, 1980, housing is eligible for bonuses by conditional use authorizations.

The Urban Design Plan is an Element of the Comprehensive Plan and was adopted by City Planning Commission Resolution 6745 on August 26, 1971. It has not been amended since that date, but Department interpretations have evolved over the 10 years of using these policies. Table 7, beginning on page 72 of the DEIR is titled "Relationship between Applicable Urban Design Policies of the San Francisco Comprehensive Plan and the Proposed Project" (emphasis added). As noted in the footnote on DEIR page 75, the cited policies are found in the Urban Design Element of the Comprehensive Plan. "Preliminary Downtown Urban Design Objectives and Policies" have been published as Appendix A of a document dated September 1980 by the Department of City Planning entitled Approaches for Resolving Issues of Downtown Conservation And Development. The 1980 objectives and policies represent a detailed set of Downtown specific

guides to building design, but have not been officially reviewed or adopted by the City Planning Commission. Appendix C of the same document contains "Urban Design Principles" which are being applied in the administrative review of projects proposed in the Downtown area. These also represent current applications of the Objectives and Policies of the Urban Design Plan as reflected in DEIR Table 7, beginning on page 72.

The discussion in Item 7, page 73, pertains to the so-called "Hallidie block" and states "In general, the project tower would represent a departure in style and scale from neighboring older development to the west..." Item 10 refers to open spaces and other public areas, not architectural cohesiveness. The project setback on Sutter St. does conflict with the Preliminary Downtown Urban Design Objectives and Policies referred to above in which Objective 2 is to "Conserve the traditional street and building relationship that characterizes Downtown" and its Policy A which states that "Structures should be built to the street property line along the entire frontage." The comment referring to Items 7 and 8 of DEIR Table 7 states a judgmental conclusion of the commenter on the basis of the facts presented. No response is appropriate in the EIR, but see also Topics 7 and 8, above.

The following underlined passage has been added to Sentence 2, Item 7, DEIR page 73: "Various design features and details are intended by the architect to complement older development nearby."

10. SKYLINE VIEWS

COMMENTS

John Elberling: "On Page[s] 66,...67 and...68 are the various views of the City showing how the project relates to the overall skyline and so on; and the main problem on the various plates is that some of the buildings proposed are missing -- and I want to ask that they be included in these plates where appropriate. The Five Fremont Center Building is missing from all of these plates...the three Tenderloin luxury hotels are all missing. The proposed Pacific III Apparel Mart office building is missing, and the proposed building in the Hoffman's Grill site...is missing.

"On Figure 21, the 456 Montgomery Building is missing. In Figure 22, again several buildings are missing, also including this time 111 Jessie Street which you approved last month and 150 Spear Street which is pending environmental review. All those should be drawn in to give an accurate cumulative description of the impacts."

Sue Hestor: "On these view pictures, I maybe have a unique view. But I go to my dentist regularly at 450 Sutter, and he happens to have an office on the 16th floor facing east; and...I can't see anything left of the Bay except for one small corner that the Crocker Building is covering over. I mean, they are kind of nice, far away view perspectives that you lose, but you're losing a lot of views downtown that people have.

"On Page 69, where it says, 'In general, interrupted views from neighboring structures would be replaced by similar views from the proposed structure,'

and they're going to charge $16 a square foot for them? Those kinds of views come with a bonus, and I think the EIR should tell you that 'We will charge for views.' So you block someone else's, and then you charge for the ones you create."

RESPONSE

Figures 20 and 22, DEIR pages 66 and 68, have been updated to show additional proposed or approved structures (see attached) Hilton Tower No. 2, Holiday Inn, and Hotel Ramada, Hunt-Knight Building, Pacific III Apparel Mart, 111 Jessie St., and Five Fremont Center have been added to Figure 20, the view from Twin Peaks. 456 Montgomery St., and 150 Spear St. would not be visible in this photograph because of existing or other proposed structures. The buildings mentioned in the comment would not be visible in the photograph in Figure 21, the view from Telegraph Hill. The Pacific III Apparel Mart, Hunt-Knight Building, 111 Jessie St., and Five Fremont Center have been added to Figure 22, the view from Potrero Hill. The three proposed hotels and 150 Spear St. would not be visible from the viewpoint of this photograph.

The photos shown in ADEIR Figures 20-22, pages 66-68, are intended to represent skyline views that are available to the general public and that include cumulative development approved or under construction. As such, the views are necessarily distant perspectives of the Downtown area as seen from publicly accessible vantage points.

While the EIR authors recognize that many private views from within the Downtown area are affected by Downtown highrise development, any systematic graphic representation of effects on these views would be prohibitively burdensome and outside the scope of the EIR.· The EIR provides the general statement about loss of views from existing Downtown building in order to disclose this impact.

The projected rent structure for the proposed project (see Response 7) is not sufficiently refined to permit assignment of rental premiums to floor areas on the basis of view availabilities.

11. <u>WIND IMPACTS</u>

COMMENT

<u>Sue Hestor</u>: "Page 33. I have a problem that you're kind of sloughing over the wind problem... The reason why the wind speed is higher at the site is because you start having very tall buildings. You have very tall slab buildings in particular which accelerate the speed of the wind and create an effect where it just goes up and down the buildings -- and by the time you're a couple of blocks down and have passed three or four of these slab buildings, you have a fairly stiff wind.

STRUCTURES PROPOSED OR UNDER CONSTRUCTION:

1 Hilton Tower No. 2
2 Holiday Inn
3 Hotel Ramada
4 Crocker Bank
5 101 California St.
6 One Sansome St.
7 Hunt-Knight Building
8 Pacific III
9 111 Jessie St.
10 5 Fremont Center
11 Pacific Gateway
12 315 Howard St.

EXISTING STRUCTURES:

A Transamerica Building
B Bank of America
C Foremost-McKesson (Aetna) Building
D One Market Plaza

SOURCE: Environmental Science Associates, Inc.

FIGURE 20: VIEW FROM TWIN PEAKS (REVISED)

PROJECT

STRUCTURES PROPOSED OR UNDER CONSTRUCTION	1 Pacific III 2 Crocker Bank 3 456 Montgomery St. 4 Hunt-Knight Building	5 One Sansome St. 6 111 Jessie St. 7 101 California St. 8 5 Fremont Center	9 Pacific Gateway 10 101 Mission St. 11 315 Howard St.
EXISTING STRUCTURES	A Bank of America B Transamerica Building C 111 Sutter St.	D 45 Fremont St. E One Market Plaza	

SOURCE: Environmental Science Associates, Inc.

FIGURE 22: VIEW FROM POTRERO HILL (REVISED)

RESPONSE

The commenter is generally correct in that street-level wind speeds may be increased by highrise structures that intercept upper-level winds and divert the winds to the street. Existing and projected winds in the vicinity of the project site are addressed at DEIR pages 2, 3, 32, 33, 71 and 140. See also Topic 32, wind mitigation.

12. DOWNTOWN OFFICE DEMAND

COMMENT

Sue Hestor: "I have a question on Page 36 about when they say office space will be needed. Now, what is "need" here? It's desired by the real estate companies that make a lot of money. But what is the real need for office in San Francisco? ...There may be an unfulfilled need in the Bay Area, but I assure you Oakland has a lot of vacancies and...they would love to have some of these problems. They would love to have some of these buildings.

"...I think that it's time to talk about what is the real need in San Francisco for these jobs because if most of the people come from out of town to get these jobs, how are we going to supply all of the space in this town when it means losing livability, losing housing, losing some jobs for people that used to have blue collar jobs in San Francisco?"

RESPONSE

DEIR page 36, paragraph 3 states that additional office space will be needed to accommodate the growth of employment in San Francisco that the Association of Bay Area Governments projects will occur. The EIR neither states nor implies any judgment that this office growth would or should fill other needs.

13. CUMULATIVE DOWNTOWN OFFICE DEVELOPMENT

COMMENTS

John Elberling: "Page 34, and they cite a figure of ten to twelve million square feet. Now, I know people can debate the definition of proposed and what status. But under any definition now, that number is too low and needs to be revised upward. I would be glad to give them our list of downtown buildings if they want help to get the number."

Sue Hestor: "On Pages 34 and 35, again I would like to have a year-by-year breakout of downtown construction for the past ten years so that you see the real impact of what is going on and that it is accelerating astronomically.

"There is also not enough weight on the impact downtown office construction has... It starts at the bottom of Page 38. Strong employment growth. Well, strong employment growth when they're here means continued 1.5/1.6 million square feet of downtown office construction in San Francisco."

RESPONSE

Table 2 on page 35 of the DEIR has been revised (see attached). As shown in the table, about 16.8 million square feet of new highrise office space was

completed during the 11-year period from 1970 to 1980. Buildings completed between 1970 and 1975 accounted for slightly more than half (53%) of this amount. Office buildings presently under construction will add about 6.7 million square feet. Approved projects not yet under construction would add another 3.7 million square feet. Projects under review or in the proposal stage are roughly estimated to account for about 5.9 million square feet. The uncertain nature of some building proposals results in a tentative estimate.

14. DOWNTOWN OFFICE RENTAL RATES AND INFLATION

COMMENT

Sue Hestor: "...look at the last paragraph on Page 36 which continues on to the next page... Space in San Francisco rents from $18 to $24, and it rents for $30 a square foot for some of the fancier buildings downtown. Rents for new office space in...San Mateo, Alameda County -- averages about $13 a square foot. Now...what is the impact on inflation to tolerate this kind of economic dislocation of San Francisco and of the region if the same kind of space can be produced somewhere else and rented for 50 percent less to continue to feed the inflationary fuels? Because I assure you that the costs that people pay for rent downtown are passed on in the costs of goods and services that people are charged, the consumer. Insurance bills go up when the insurance headquarters has to spend that kind of money in San Francisco, and I don't think it's being disloyal to San Francisco to wonder if it isn't more beneficial to the economy as a whole to have less inflation in rental rates and less inflation in rental profits...by having some of that construction where you're paying $13 a square foot. I think inflation impacts are very germane in 1981 because I can't deal with inflation."

RESPONSE

Rents are largely determined by supply and demand. Restricting office development (and, therefore, restricting supply) while demand for San Francisco office space continues to grow would increase rents in existing buildings more than if new office buildings were built. If building restrictions in San Francisco were to cause some office users to seek space elsewhere in the Bay Area, increased demand in those areas would raise their rents and have a similar inflationary impact.

15. PROJECT SITE TENANCIES AND EMPLOYEE SHIFTS

COMMENTS

Sue Hestor: "On Page 11, I have a problem with the retail uses. When you have someone like this that is eliminating a wide range of retail uses and you

TABLE 2: MAJOR OFFICE BUILDING CONSTRUCTION IN SAN FRANCISCO AS OF MARCH 1, 1981/1/

Year	Total Gross Sq. Ft. Completed	Five-Year Total	Five-Year Annual Average	Cumulative Total
Pre-1960	16,050,000			16,050,000
1960	836,000			
1961	270,000			
1962	---			
1963	1,219,000			
1964	---			
1960-1964		2,325,000	465,000	18,375,000
1965	1,529,000			
1966	1,027,000			
1967	2,046,000			
1968	186,000			
1969	3,173,000			
1965-1969		7,961,000	1,592,000	26,336,000
1970	1,853,000			
1971	---			
1972	1,858,000			
1973	2,633,000			
1974	2,548,000			
1970-1974		8,892,000	1,778,000	35,228,000
1975	---			
1976	1,646,000			
1977	3,551,000			
1978	---			
1979	2,220,000			
1975-1979		7,417,000	1,483,000	42,645,000
1980	523,000			43,168,000
Additional Projects Under Construction	6,700,000			49,868,000
Additional Projects Approved, Not Under Construction	3,700,000			53,568,000
Additional Projects Under Review or Proposed	5,900,000 (Estimate)			59,468,000

/1/ Includes only buildings ten stories or greater in height.

SOURCE: L. Blazej, Department of City Planning, based on department records; and Table R-1 in "Summary of Comments and Responses" to Five Fremont Center DEIR, March 5, 1981.

have an EIR that gives you no information other than they have a bank as tenant, surprise. Retail use? That's a bank.

"I do not see any reflection in the project plan in terms of mix of tenants and in terms of the kinds of people they will serve because as I pointed out earlier, it's very different if you have a $2 luncheonette or a $7 basic hamburger...

"...and you may as well adopt a policy downtown like you do out on Taraval Street for banks and savings and loans...

"In terms of the employment and tenant mix, I have an important question. What were the skills of the employees in the buildings that are being vacated, and what are the employment skills necessary for the buildings to go up?

"On Page 65, the first sentence: 'The project would lessen the retail diversity of the site by reducing the number of street level retail uses from the present 11 to as few as four.'

"I want to know how many they're proposing? Is that what they're really coming in with is four retail uses on a block that used to have eleven? I think it's a crime if they are.

"On Page 76, Employment, Housing, and Fiscal Factors. In the replacement of 19,900 square feet of retail restaurant space with 5,900, what is the impact of that replacement? This is the environmental impact section. It's going to mean...an increased demand on the site for...support services...

"Growth of employment. Again, what kinds of jobs are being replaced and what kinds of jobs are coming in?

"I have a problem with who gets these 1,170 jobs. Who are they? Where do they come from? Where does this construction employment come from?

"There's something good [on] Page 206...the description of all of the buildings and the uses. Leave that in."

RESPONSE

At the beginning of 1980, 13 retail establishments occupied street-level space on the site and another two retail stores occupied mezzanine space (see DEIR page 206).

The project would provide street-level retail space for four to ten tenants, which have not yet been determined. Street-level space would also include a bank lobby on the ground floor which would provide access to the main bank facilities on the second floor. A tentative lease agreement has been reached with the bank tenant.

The project would diminish retail diversity at the site. Retail and restaurant demand would shift, in large part, to other establishments in the Downtown area including the Crocker Galleria now under construction across Sutter St. from the proposed project (see DEIR page 65).

Approximately 175 persons were employed in the 60 businesses that occupied the site. Tenants included attorneys, insurance agents, real estate brokers, graphics companies, editorial services, typing services, employment agencies, advertising agencies, sales offices, and non-profit organizations. Only one office tenant employed more than ten people.

The employment skills necessary for the jobs that would be in the project cannot be determined specifically because no tenants (other than the bank) have committed to the space. However, the jobs would probably consist of a mix of office occupations, including clerical, sales, professional and managerial positions. These jobs would probably be similar to the jobs in the old buildings, although fewer retail jobs would exist in the new building, and there would be bank jobs which did not exist in the old buildings.

The jobs in the new building would be held by both residents and non-residents of San Francisco. As discussed in the "Residence Patterns of Downtown Office Workers" beginning at DEIR page 178, workers in the new building would have residence patterns similar to those of Downtown San Francisco workers as a whole. As computed in the Appendix, it is projected that 37 to 41% of the workers would be San Francisco residents.

Approximately 12,000 construction workers are members of construction union locals affiliated with the San Francisco Building and Construction Trades Council (S. Smith, San Francisco Building and Construction Trades Council, telephone communication, July 4, 1980). These workers, as well as workers from union locals affiliated with other Bay Area councils, would provide the construction labor pool for the project. Not all workers who would be employed on the project would necessarily live in San Francisco.

16. BUSINESS DISLOCATION AND DOWNTOWN LOT SIZE

COMMENT

Sue Hestor: "...I have a problem with Page 10 and especially when you read it in conjuction with Page 8. They...describe the kind of lots that are on the project site; and then...I read Page 10 to be very scary. Page 10 shows the elimination of small lots downtown. It especially would show this if it did what I think it should show, which is everything down to the Bay because you no longer have the kinds of little lots that exist on this site and that exist on a couple other blocks in this little chart -- and that means seeing, showing those big chunks out of a block means there are no small businesses left. I mean, the kinds of businesses in this block are listed on Page 206, and I want them pulled into the main text. I think it's 206...

"Sporting goods, women's clothing, photographic equipment, men's clothing, sandwich shops, optician, clothing store, bar and grill, unnamed flower stall, bar and restaurant -- that's what was there a couple of months ago... There have been a lot of other uses above the ground floor level in those buildings...

"That is what is represented by all of these teeny tiny lots that somehow or other have been consigned to death by this City.

"...what is the impact on small business dislocation by this project?

"I would also like to know on Page 80 where they're talking about the displacement of businesses where they will go? How many of them have gone out of business totally because they couldn't find another place? How many of them have left the C-3-O Montgomery Street area? How many of them have left San Francisco?

"...I also question whether the displacement information and the merchant information is the peak information from when these buildings were full or whether they're using a measuring point a year ago that was based on their starting to not let people renew their leases and starting to throw out people. So I have a question throughout the EIR if the information that's in there is really the best information on total occupancy of the buildings because if those buildings have all been filled, he can't find space downtown."

Commissioner Bierman: "...in reading the EIR the last couple of days I have been very distressed with the loss of certain kinds of businesses and with what the character is going to be.

"I don't think that the character of the Crocker Plaza or the Crocker project is going to be at all the character of the little businesses that are lost in this project. I think to say that the retail loss will be taken care of by Crocker may or may not be true."

Heritage: "...The statement that 'The number of street-level retail/restaurant tenants would be reduced form 15 to four' (Page 3) doesn't agree with figures on Page 73, where the reduction is from 11 to four. Which is correct?"

RESPONSE

The elimination of small lots does not cause the elimination of small businesses, as there is not necessarily a direct relationship between the size of a lot and the sizes of the businesses that occupy it. New construction and resulting higher rents do have implications for typical site tenancies and employment composition, however, as discussed elsewhere in these responses (see below and Topic 15).

The following sentence is added to DEIR page 25, paragraph 4: "Retail tenants occupying the project site in January 1980 are identified in Appendix C, page 289."

According to Cahill Construction Company, there were five retail tenants still at the site in March 1981. Of those who had vacated the site, seven retail tenants and 38 non-retail tenants relocated elsewhere in San Francisco, one retail tenant and three non-retail tenants located outside San Francisco, and two retail tenants and five non-retail tenants were unaccounted for. No previous tenants are known to have gone out of business. Thirty-five of the businesses have relocated in downtown San Francisco.

The Crocker retail galleria will provide space for 65 retail businesses. Most shops will be approximately 300-400 square feet in size. Crocker Properties

is seeking a mix of tenants, most of which could be characterized as boutiques. Among the presently secured tenants are a cooking utensils shop, a maternity apparel shop and a jewelry store. There will also be a large restaurant-cafeteria. Rents are not being quoted on a per square foot basis because most will be based, at least in part, on a percentage of the gross revenues of the tenant (L. Enersen, Assistant Project Manager, Crocker Properties, March 30, 1981).

The statements on pages 3, 65, and 73 that refer to the number of retail/restaurant tenants have been changed to read:

> "The number of street-level retail/restaurant tenants would be reduced from 13 to between four and ten."

17. FISCAL IMPACTS, GENERAL, SAN FRANCISCO

COMMENTS

Commissioner Starbuck: "I was going to suggest earlier today [that] a complete written statement of [the Downtown fiscal study by David Jones]...be given to the EIR consultants to be appended here."

John Elberling: "On Page 86, there is a comparison of changes in costs and revenues. Let me ask you again: Did the presentation earlier cover the needs for life cycle analysis as opposed to the analysis in this report?...

"This report has a very interesting analysis of office building costs. They basically say: Well, it's true after four years their costs exceed their revenue. But since they are replacing something that brings in so much less money for the City, it takes ten years before the cumulative costs to the City exceed the cumulative difference in just not building anything. Then they make the argument that ten years from now, somebody else will build another building, and that will pay for the deficit of this one here...

"It's obviously not sound economic analysis. You don't analyze economics in terms of chain letters. You use a life cycle cost system. You prorate it over the years, if necessary. But you don't depend on other buildings to pay your own costs. Of course, if you really think Downtown is going to grow forever, that there will never be another major recession, another major halt in building, or no ultimate limits to the size of Downtown, then they could use this approach honestly... This whole section and analysis they did -- and they go into great length in the appendix -- should all be deleted in this DEIR, and they should do an honest job with life cycle analysis."

Sue Hestor (for Carl Imparato): "With regard to the appendix on fiscal consideration -- and it's referred to on Pages 87 and 3 in the text, and I believe it's Appendix C in the text -- the appendix when read in light of the comments in the text itself show that it's replete with guesses. Such statements as "available information suggests that new downtown development has economic benefits..." are not substantiated...you take the Arthur Andersen study and you take your self-fulfilling prophecies or you attempt to use that data and then you build an EIR on it.

"When you look at that section on fiscal impact, it is replete with ifs. That whole section has to go... The summary on Page 189 says that it is not stated that marginal costs are greater than marginal revenues. Why are they not stated? Because they can't. It's not true. That is a statement that should be turned on its heels and put in there. The marginal costs are greater than marginal revenues.

"In particular, the statement in the EIR that new buildings come closer to paying their costs than old ones doesn't take into account the number of square feet involved in a project like this one. You are demolishing a lot smaller area; and if you are creating a demand and creating an impact on the City that has a leasable square foot area of ten times as great, it doesn't matter that maybe you have a 15 percent less drain on the City because you are increasing the square feet and, therefore, you are increasing the total amount of drain on the City -- and in particular this doesn't include the higher cost of Muni services, capital costs, and service costs during peak hours.

"On Page 206 -- and this is Carl speaking -- He was shocked. For the first time, they use "Downtown would" in this section on financial analysis, a section that's full of ifs and maybes and if this thing happens then this thing might. But all of a sudden, their conclusion is: Downtown would...improved Downtown growth at the level that is projected in this EIR and projected by all these applications would improve the City's financial situation. I would like to see a logical scheme that shows up with a 'would' at the end of a whole lot of ifs.

"Carl...believes that you should strike conclusions based on statements such as available information suggests on Page 87 and Page 3, the infinite growth scheme that is on Page 143 and Page 5, and on Pages 84 and 86 increasing revenues faster than costs. The only realistic analysis is a life cycle analysis taking into account marginal costs and marginal benefits of cumulative development."

Sue Hestor: "Page 34. I would like to see a comparison between the rents versus revenue to the City of the old project, the current project versus the new project... It says the old rent was $4 to $7. The new rent if you believe it is $16. The old revenue is $1.71 net per square foot. The new revenue is $2.16 net per square foot. You see that the revenues are going up an absolute minimum of about 2.4 to 4 times as great. The revenues to the City are going up per square foot a pittance. It's not even 25 percent, and I think that you really need to have that kind of information before you.

"On Page 84, I have a question about the overall cost per unit of services provided to a new building being lower than an existing building. This goes back to the economic analysis in that appendix that I think has to be really reworked.

"The cumulative fiscal impacts on Page 87, this section has to go. They are implying benefits; and when you read the section, you find lots of ifs, and I would say the first sentence in the second paragraph has to read "if and only if after these adjustments available information..." What is the available information? There's no footnotes in here. Available information, I presume they are using Appendix C for this. Well, it says that in the last part of

it. But Appendix C as it stands right now is the City Planning Commission's statement.

"Do you agree with the stuff in Appendix C? If you approve this EIR as it stands, Appendix C is the City Planning Commission's policy statement on fiscal impacts, and I don't think you can approve it. I think you have to throw the whole thing out because you're supposed to be doing some work of your own to come to those conclusions, and if there's anything you can rely on it would be Sedway/Cook -- and that isn't a Sedway/Cook analysis in Appendix C.

"The section on Cumulative Development, Paragraph 2, Page 143, has to go out.

"In general, available information suggests..." This is their famous cost analysis.

"Page 178... As I pointed out in Appendix C, either you guys say it is your statement or take the whole thing out. There's no source on this.

"Pages 189 through 205. The fiscal considerations as part of that are especially gross and have to go.

"...I would especially direct your attention to Page 205, the last paragraph, where they start fudging on their pyramid scheme. I found that to be an interesting paragraph."

RESPONSE

Since 1979, a number of studies have been prepared that have analyzed one aspect or another of Downtown's impact on the City's fiscal health. These studies differ in many ways: in the questions they ask, the data sources they use, the methodologies they employ, and the conclusions they draw. Because of their differences, the several studies understandably tend to be confusing to people trying to make some sense out of this complicated issue. In comments on this DEIR, some of the other studies were referred to or compared with this DEIR. To explain more explicitly what this DEIR does and does not do, and to illuminate its similarities and differences with other studies, the following short summary of five recent studies has been prepared.

As Table R-1 shows, the five studies address two separate questions. The Arthur Andersen and David Jones studies examine the fiscal impact of the existing Downtown. Though they use the same data base, their conclusions differ because they use very different methodologies.

The other three studies address the question of what the fiscal impact of <u>new</u> development would be. The different conclusions are the result both of different data bases and different methodologies. To compare them as well as to respond to comments on the "Fiscal Considerations" section of Appendix C, the following summary of the argument and conclusion of Appendix C has been prepared.

TABLE R-1: SUMMARY OF RECENT STUDIES ON FISCAL IMPACT OF DOWNTOWN DEVELOPMENT

STUDY, AUTHOR, DATE	PURPOSE OF STUDY	DATA SOURCES	STUDY METHODOLOGY	CONCLUSIONS
"Fiscal Concerns" in Downtown San Francisco Conservation and Development Planning Program, Phase 1 Study, Sedway/Cooke, et al., October 1979, pp. 56-59.	To qualitatively assess the likely fiscal impact of new development in the C-3 area under existing zoning ordinances and under Proposition 0.	SPUR Study (1975)	SPUR cost/revenue estimates for downtown in 1973 and for projected growth 1974-1990 were assumed. Proposition 13's effect on revenues and the possible need for increased transportation infrastructure were considered. Generalized conclusions about fiscal impact of new development were drawn.	1) After Proposition 13, "costs may exceed revenues in the downtown by as much as 25%." 2) "[N]ew downtown development will not solve the city's growing fiscal problem; without new revenue sources, development will make it worse in the long run."
Downtown Highrise District Cost Revenue Study, Arthur Andersen & Co., November 1980	To quantify for 1976-77 and 1978-79 how much revenue the C-3-0 area generated and how much it cost to provide city services to the area.	Data compiled from city records and through conversations with city officials.	The study counted only revenues generated within the C-3-0 and costs of providing services to the C-3-0. "The principle guiding the study methodology was to calculate the amount of revenue that San Francisco would lose and the costs that could be reduced if the Downtown Highrise District were a separate city."	The C-3-0 generated $56.79 million in 1976-77, or 61% more than the cost of city services to the area. In 1978-79, revenues were $53.29 million, or 48% greater than costs.
"Fiscal Considerations" Appendix C, 101 Montgomery Street DEIR, Recht Hausrath & Associates, January 1981.	To draw generalized conclusions about "how new development downtown in a post-Proposition 13 environment is likely to change the City's fiscal health from what it would be without new development."	SPUR Study, city records and conversations with city officials.	Conclusions were drawn about how revenues differ between existing and new buildings, and how costs differ between existing and new buildings. Then, under alternative assumptions about the cost/revenue balance in existing buildings and in new buildings, the fiscal impact over time of new development was compared to that of no new development.	"[A]n on-going process of new development would improve the City's fiscal situation. This beneficial impact would cease if new development were halted. This conclusion is tentative due to uncertainties about increased Muni costs."
Downtown Highrise District Cost/Revenue Study, David Jones, February 1981.	To quantify for 1978-79 the revenues generated by businesses in the C-3-0 and the service costs imposed on the city and BART by the C-3-0.	Arthur Andersen study.	The Jones study differs from the Andersen study primarily as follows: 1) Costs of BART (but not revenues to BART) are included; 2) Only revenues paid by businesses and building owners are considered; 3) Muni deficit is computed differently; 4) Most costs are estimated as a percentage of revenues rather than on the basis of actual service demand in the C-3-0.	The C-3-0 imposed costs of $94.4 million on San Francisco and BART, or 125% more than the revenues the area's businesses and building owners generated to San Francisco.
Fiscal Impacts of New Downtown High-Rises on the City and County of San Francisco, Gruen Gruen + Associates, March 1981.	To quantitatively estimate city revenues from the C-3-0 and costs of servicing the C-3-0 in 1998, assuming the addition of 30 million square feet of building space in the C-3-0 between 1981 and 1998.	Arthur Andersen study; data compiled from city records and through conversations with city officials.	"Only direct effects are considered." Costs are only measured for services "provided within the physical limits of the C-3-0 district" and revenues are limited to "taxes on buildings within the district and the activities that take place within those buildings." Assumes the Arthur Andersen study is accurate and builds upon it.	In 1980, revenues from the 39 million square feet of building space in the C-3-0 were 1.66 times as large as costs. In 1998, after completion of the 30 million square feet of new space, revenues from the entire 69 million square feet of C-3-0 building space would increase to 1.92 times as large as costs.

SOURCE: Recht, Hausrath and Associates

Argument and Conclusion of "Fiscal Considerations", Appendix C

The fiscal appendix reached its conclusions about the fiscal impact of new development through the following steps:

1) It was concluded that City revenues per square foot from a new building would exceed those from an old building (primarily because of Proposition 13).

2) It was concluded that the costs per square foot of providing services to new buildings would be no greater than the costs per square foot of providing the same level of services to old buildings.

3) The result of these two conclusions is that new buildings do a better job of covering their costs than do old buildings.

4) The conclusions above say nothing, however, about whether revenues exceed costs either in new buildings or old buildings. Based on steps 1 and 2 above, one of three possibilities can be true:

   A) Revenues exceed costs both in new buildings and in old buildings;

   B) Revenues exceed costs in new buildings but costs exceed revenues in old buildings; or

   C) Costs exceed revenues both in new buildings and old buildings.

   A fourth possibility--that revenues exceed costs in old buildings but costs exceed revenues in new buildings--would be inconsistent with the conclusions from steps 1 and 2 above.

5) New development would be initially beneficial in Cases A and B. This is because, in each case, new buildings generate more in revenues than they cost the City.

6) In Case C, even though costs exceed revenues in the new building as well as in the old, the new building could be initially beneficial. This could be true under either of two circumstances:

   - Though the new building would generate a deficit, it might replace an old building that generated a larger deficit.

   - If the new building generates a larger absolute deficit (but not a larger deficit per sq. ft.) than the building it replaces, the new development could be initially beneficial if state and/or local governments take steps to reduce service levels or increase revenues in response to Proposition 13 revenue losses. Because the deficit per sq. ft. in the new building would be less than that in the old building, the revenue increases or service cuts needed to restore fiscal balance would be less on a per sq. ft. basis for the new building. Thus, new buildings would make the necessary fiscal adjustments easier to achieve.

7) Largely because of Proposition 13, therefore, it was concluded that new development would initially generate a net fiscal benefit to the City.

8) Over time, however, an individual building that initially generates a surplus could begin generating deficits. This is because costs will increase at the rate of inflation while property taxes will increase only at a maximum of 2% per year under Proposition 13.

9) Though an individual building might eventually generate a deficit, an on-going policy of permitting new development would probably have the overall effect of improving the City's fiscal situation over what it would be without new development. This is because, under Proposition 13, property tax revenues will increase faster than 2% per year only if there is new development or the sale of existing property.

Thus, to sum up the findings in the "Fiscal Considerations" section of Appendix C:

- Proposition 13 makes new development initially more fiscally beneficial than existing development but eventually might make individual new buildings a drain on the City;

- Thus, new development would probably be fiscally beneficial, but <u>only</u> if a policy permitting and ensuring continual new development were followed so that new buildings are always being added to the tax rolls. If new development will be discouraged in the future, or market forces halt the growth of downtown, permitting new development today could eventually prove more disadvantageous to the City than not permitting it.

- These conclusions are based on the assumption that today's system of taxing business real property remains unchanged. If the law implementing Proposition 13 is changed, these conclusions would have to be altered. The new conclusions would depend on how the tax laws are changed.

<u>Appendix C Compared with Other Studies</u>

The three studies that looked at the impact of new development each utilize different methodologies and data bases. A brief comparison of the three can shed light on their differences.

The results of Appendix C are based on its conclusions that, per square foot, new buildings generate greater revenues than old buildings and cost the City no more than do old buildings. It makes no conclusion about the cost/revenue balance in either old buildings or new buildings. Instead, it examines the fiscal impact of new development under all possible situations.

This approach was chosen in response to the data that were available at the time the study was prepared. No study existed that had recently analyzed the fiscal contribution of the existing downtown (neither the Andersen nor the Jones reports had been published). Also, no data were readily available that indicated the fiscal impact of new development. Because prepartion of those

data on a district-wide basis would have been beyond the scope of this EIR on a single building, Appendix C approached the question from an alternative perspective. Conclusions about how costs differ between new and old buildings, and how revenues differ between new and old buildings, could be reliably drawn based on existing data. Then, by assuming all possibilities about the cost/revenue relationships in old and new buildings, conclusions about the fiscal impact of new development were drawn for each possible case.

The other two studies approach the question differently. They initially draw conclusions about the cost/revenue balance in old and new buildings. The Gruen Gruen + Associates (GG+A) study updates the Arthur Andersen study to conclude that revenues exceeded costs from the existing downtown in 1980 (old buildings). It also concludes, based on its own research, that new buildings initially generate revenues greater than costs. The GG+A study, in fact, represents one of the cases treated in Appendix C. Like Appendix C, it concludes that revenues from new buildings are greater than revenues from old buildings ($1,954,500 compared to $1,627,179 per million square feet) and the costs of new buildings are no greater than costs of old buildings ($323,755 compared to $979,102 per million square feet). With these conclusions and its conclusions that revenues exceed costs for both old and new buildings, the GG+A study finds that the fiscal situation is equivalent to the case in Appendix C that assumes revenues exceed costs for both new and old development (Case A under step 4 above).

The Sedway/Cooke study concludes, on the basis of adjustments it makes to data in the SPUR study, that the existing downtown (old buildings) costs the City more than the revenue it generates. The study is uncertain about whether new development initially generates a surplus. The study states: "According to the analysis in the SPUR report, one might expect the initial revenues they generate to exceed their cost impact on the city. However, the SPUR estimates did not recognize a possible need for major inter-city transportation facilities beyond new buses." No conclusion is drawn, however, about whether the transportation costs would alter the SPUR conclusion. The Sedway/Cooke study did not treat the question of how costs in new buildings compare to costs in old buildings or how revenues from new buildings compare with revenues from old buildings.

The final conclusion to be drawn was how costs and revenues from new development would compare. Appendix C concludes that, if new development were to continue, it would probably be fiscally beneficial to the City. The Sedway/Cooke study concludes that "[New] Downtown development will not solve the city's growing fiscal problem; without new revenue sources, development will make it worse in the long run." The GG+A study comes to no explicit conclusion about the relationship between costs and revenues of new development over time. It concludes that C-3-0 revenues are 1.66 times as great as costs in 1980 before development, but increase to 1.92 times as great as costs in 1998 after new development. It does not compute, however, the revenues and costs produced by new development alone--i.e., what total C-3-0 revenues and costs would be in 1998 after new development, compared to what they would be in 1998 if there were no new development.

These different approaches and conclusions of these studies are summarized in Table R-2.

TABLE R-2: SUMMARY OF MAJOR ASSUMPTIONS AND CONCLUSIONS OF THREE STUDIES OF THE FISCAL IMPACT OF NEW DOWNTOWN DEVELOPMENT

Topic	Assumption or Conclusion of: Appendix C	GG+A Study	Sedway/Cooke Study
Are revenues per square foot from new buildings greater than those from old buildings?	Yes (based on an analysis of the effect of Proposition 13)	Yes (based on the Arthur Andersen study and its own revenue estimates)	Does Not Address the Question
Are costs per square foot of servicing new buildings less than or equal to those of old buildings?	Yes (based on SPUR study, its cost allocation methodology, recent EIRs)	Yes (based on the Arther Andersen study and its own cost estimates)	Does Not Address the Question
Do revenues exceed costs initially in new buildings?	Maybe - examines fiscal impact assuming both yes and no	Yes (based on its own cost/ revenue estimates)	Unclear (cites SPUR study that says yes, but adds that transportation costs may change that conclusion)
Do revenues exceed costs in old buildings?	Maybe - examines fiscal impact assuming both yes and no	Yes (based on update of Arthur Andersen study)	No (based on revisions to SPUR study)
Will the City's fiscal situation be better in the future with new development than without it?	Probably yes - but only if new development continues	Apparently yes - with new development, the city would be better off in the future than it is today. The future with and without new development is not compared.	No - unless new revenue sources are found.

SOURCE: Recht, Hausrath and Associates

Other Responses

Many of the comments claimed that Appendix C should have used a "life-cycle analysis" but failed to. A life-cycle analysis, presumably, means that the fiscal performance of a new project is judged on the basis of the total costs and total revenues that it would generate over its lifetime. It is implied that a correct application of this methodology would conclude that new development is not fiscally beneficial. Ms. Hestor suggests that the Sedway/Cook study employed this methodology correctly. In fact, however, Appendix C did use a life-cycle analysis, but arrived at a different conclusion than the Sedway/Cooke study because it took the further step of analyzing the life-cycle results in the context of cumulative downtown development.

Both Appendix C and the Sedway/Cooke study conclude that an individual new building will probably eventually generate a deficit because of Proposition 13. The Sedway/Cooke study stops its analysis at that point and concludes that new development is fiscally harmful to the City.

It is necessary, however, to extend the analysis to consider what this conclusion means in the context of what else is occurring downtown. The necessity of doing this can be explained by the example of spectators at a horse race. If one spectator stands up as the horses approach the finish line, he will see better. But that does not mean that if everyone stands up, everyone will see better. Economists call this the "fallacy of composition": the effect of one person's actions may be the opposite of the effect of everybody acting as that one person acted. Thus, Appendix C considered what the cumulative fiscal impact would be, over time, of constructing a number of new buidings (each of which, on its own, would eventually generate a deficit). It concluded that the effect would probably be positive. This type of analysis is not a "pyramid scheme" or "economics in terms of chain letters". It is the appropriate methodology and is, in fact, precisely what Mr. Imparato suggests should be done when he comments that "The realistic analysis is a life-cycle analysis taking into account marginal costs and marginal revenues of cumulative development."

Mr. Elberling comments that "if you really think downtown is going to grow forever, that there will never be another major recession, another major halt in building, or no ultimate limits to the size of downtown, then they could use this approach honestly." It is true that the conclusion that new development is fiscally beneficial assumes that downtown will continue to grow. But the Appendix also states that if growth downtown eventually ceases, new development would eventually have a negative fiscal impact. (It is important to remember that both of these conclusions assume no change to Proposition 13 implementing legislation and no new revenue sources.) Thus, the Appendix neither predicts the future nor advocates any policy. It merely describes the fiscal impact of new development. If growth continues downtown, then new development would probably be fiscally beneficial. On the other hand, if growth eventually ceases downtown, then new development would probably not be fiscally beneficial. This conclusion, therefore, can be used as an argument either for or against new development, depending on how it is anticipated that City policy and market forces will affect growth in the future.

Page 205 does not represent "fudging" on the conclusions of Appendix C. It merely suggests that the conclusion that new development would probably be fiscally beneficial is not sufficient reason to follow a policy permitting new development. Other factors--such as the many non-fiscal concerns addressed in this EIR--must be considered as well.

The following underlined addition has been made to DEIR page 205, sentence 2:

> "While the analysis does suggest that continued downtown development could help relieve the City's fiscal plight, the analysis neither concludes that this makes development desirable nor that the City's fiscal problems are best solved by permitting new development."

The Appendix was based on the best data available at the time it was prepared. Caution was expressed only because data were not always available that would permit making conclusions with 100% certainty. Any conclusions drawn, however, were judged to be justified by the data that were available. Overall conclusions were left tentative because of data uncertainties about the Muni. It would not be accurate or appropriate to imply certainty when the data base could not be absolutely complete and certain.

The Appendix was not based on the Arthur Andersen study. Neither that study,the GG+A study, nor the Jones study had been completed when this DEIR was prepared.

The basis of the analysis is documented in the Appendix, and is explained earlier in these responses. The conclusions that per square foot revenues are greater in new buildings than in old, and that per square foot costs are not larger in new buildings than in old, are based on the SPUR study, numerous recent EIRs, City data on pre- and post-Proposition 13 assessed values, and a consistent methodology for apportioning costs that is different from the methodologies of both the Andersen and the Jones Studies. These conclusions are supported in detail on pages 193-195 of the DEIR.

Because data were not available to conclude what the cost/revenue balance in new and old buildings is, the Appendix considered all of the three possibilities. For that reason it never stated whether or not, initially, marginal revenues would exceed marginal costs in new buildings. The "ifs" that some commenters referred to were mostly used in the text when the analysis considered the three possibilities. The final conclusion on page 206 is a logical result of the data and analysis presented earlier in the appendix. It is not stated with as much certainty as Mr. Imparato characterizes it but rather it is a qualified conclusion.

It is true that, even if a new building has a smaller deficit per square foot than the building it replaces, its total deficit could be larger if the new building is larger than the old. This possibility is treated as Condition 2 on pages 202-204 of the DEIR. It is concluded that such a building would still probably help the City by making it easier for the City to adjust to Proposition 13.

The DEIR revenue estimates for 1982-83 indicate that, if the old buildings were standing and occupied then, rents per net square foot would average

$12.39 and General Fund revenues to San Francisco would be $1.70. Average rents in the new building in 1982-83 would be $28.26 per net square foot and General Fund revenues to San Francisco would be $2.21.

18. FISCAL IMPACTS, TRANSIT

COMMENTS

John Elberling: "On Page 41 in the environmental setting section... We have some severe objections to the way they calculate these numbers. First of all, in determining transit costs, they limit the City residents' costs... to the Muni deficit and its allocation. This asks you to pretend that out of your pockets you pay no Federal taxes that subsequently are returned to the Muni for an operating subsidy. In fact, the Muni last year got $10 million in operating subsidies... That's some of our [Federal] tax money, and in fact that assistance needs to be apportioned as well proportionately to businesses and residents who pay it as a true reflection of our costs."

Sue Hestor (for Carl Imparato): "On Page 85, they admit that they left out cost analysis on Muni: capital costs, secondary riders, total cumulative demand..."

Sue Hestor: "Page 41... 'Certain factors necessarily left out of this analysis might make the actual subsidy somewhat more or less than $6.2 million,' and there's a Footnote 23... on Page 45. Footnote 23 is what tells you what assumptions they've left out -- things like capital costs, rush hour congestion, non-work-related trips. That footnote belongs in the text because when you have the substance of the footnote in the text, you find out that their calculations don't mean anything.

"Page 51. I think it should be noticed in the discussion of transit that with the exception of the marine ferry that's run by Harbor Carriers, every one of these transit carriers is heavily subsidized by the public and dependent on heavy subsidies and that these subsidies are in jeopardy. I don't think it's honest talking about transit without talking about the problems that transit is going to be surviving as a subsidized mechanism...

"Maybe it's inappropriate, but I would like to know if this building owner is actively lobbying against the transit fee at the Board of Supervisors through their agents... and I don't think that you can stop them from free speech. That's their right. But I think it should be in an EIR whether this project is through any agents actively opposing transit fees; and the housing fees haven't gotten to the Board yet, so they may not be lobbying that."

RESPONSE

It is true that Federal subsidies to Muni are paid, in part, by the taxes paid by San Francisco residents. However, the Federal tax burden on San Franciscans to support those subventions is so small that it can be safely ignored. It is only about one-fiftieth of a cent per ride. Assuming that San Francisco yields Federal tax subvention revenues proportional to its share of the nation's population, only about 0.3% of these revenues are derived from

San Francisco. Thus, the $10,000,000 in Federal subventions to the Muni costs San Francisco taxpayers $30,000. Allocation of the Muni subventions to all Federal taxpayers is the correct methodology, and is consistent with the methodology of the "Downtown Highrise District Cost/Revenue Study" (David Jones, February 19, 1981). In that study, the author explains (for the case of San Francisco) that "No property taxpayer in San Francisco has the discretion to specify that his or her tax contribution will be used only for the services he or she utilizes." Similarly, no Federal taxpayer can determine how his or her tax payments should be spent. Therefore, the only valid way of apportioning Federal expenditures is to distribute them proportionally to all taxpayers. Another way of viewing the matter is that, if the subventions to the Muni were halted, all taxpayers--not just San Francisco taxpayers--would share in the tax relief. The $30,000 cost to the City's taxpayers translates into a cost of only $.00022 per ride. Thus, if Federal subventions to Muni were to increase as ridership increases, the Federal tax burden on San Francisco to fund those subventions would increase by a total of only $24 as a result of the proposed project.

The last sentence of the first paragraph on page 41 has been deleted and, in its place, footnote 23 on page 45 has been inserted as a new paragraph. Footnote 23 has been deleted. Footnote numbers 24 and 25 on DEIR page 42 and 45 have been changed to numbers 23 and 24, respectively.

As discussed in the text and in the "Fiscal Considerations" section of Appendix C, begining at DEIR page 189, the Muni deficit estimate is an approximation due to data limitations. Because the data that would permit a more accurate estimate are not available, it is not possible to determine the degree of accuracy of the given estimate. As explained in the Appendix, there are factors that could make it either an underestimate or an overestimate.

If state and Federal aid to Muni were reduced, the estimated deficit would increase. Based on the 1980-1981 San Francisco budget, the Muni deficit would be about one-third larger than estimated in the budget if there were no Federal and state operating assistance.

Cahill Construction Company has pledged its support of an assessment district to help finance the Muni. The assessment district would encompass an area of Downtown that currently contains about 40 million net square feet of office space. According to the Cahill Construction Company, "Our support of this assessment district is based upon its being created in lieu of the proposed Muni Impact Transit Fee and/or similar proposals designed to raise funds from the business community to underwrite the municipal railway deficit." (Letter from G.K. Cahill to Supervisor Louise Renne, February 24, 1981.)

19. HOUSING

COMMENTS

John Elberling: "You are probably aware when you talk about housing impacts and about gentrification, which is displacement of lower-income households by people who can afford to pay more rent, that the City has devised programs to try to combat that problem -- and those programs all cost money... many people

are engaged in spending community development block grant funds which Federal money again comes out of the pockets of all Federal taxpayers.

"If the EIR admits that there's an impact on the housing and if the EIR admits as it should that part of the impact is displacement of low-income households, then you have got to realize that part of the funds that the City puts into it is the cost of the office building...

"On Page 81 in the housing section... Simply it should at least be as good as the Five Fremont Center DEIR section on housing was and at least should produce that much detail, which included an estimate to calculate in numerical terms the impact on the housing market and the number of units needed.

"[The EIR] needs at least to again try to generate an estimate for the number of units that would be required to keep the City's housing stock in equilibrium as a result of this project, the present equilibrium."

Sue Hestor (for Carl Imparato): "On Pages 78 and 79... the housing impact of this project is not looked at in view of the multiplier effect that they used elsewhere in the EIR for the other jobs that will be created, and those people that are getting those jobs are going to need housing somewhere, and the whole question of the total secondary demand on housing impact is really left out in this EIR.

"There is on Page 41 under significant environmental effects no real analysis of the displacement of low- and moderate-income residents. This was also the case on Page 143. When you're talking about housing impacts, you have to talk about displacement gentrification."

Sue Hestor: "...Page 38 talks about the slowest growing housing market area in terms of rate of growth of the older central cities.

"I would add that when you have a problem where... a housing market... can't keep up with the job creation, you are going to have impacts on distance commuted, energy use, and the cost to the worker of the commute.

"In the housing section, there is no discussion of the impact in terms of the dwindling supply of residential units because hotels have been legally and illegally converted, apartments have been changed to condos, and apartments have been converted to non-residential tenancies. The housing section is not very good at all.

"I would point out that the average cost of housing per year is going up 21.2 percent... That's the first time I saw that. Now I know the numbers do correspond to the reality that we all feel.

"I have a problem trying to figure out where these people are going to live if they are going to be 40 percent San Francisco residents.

"I don't think that it's the same thing to say that while the project is going on that a certain percentage of the people live in San Francisco. How many of those people move to San Francisco following the jobs and become temporary residents and don't really become permanent residents of this town? That

seems to be not that unusual in the construction trade just from reading the papers, and I don't know if the figure that comes from Cahill is reliable.

"I would like to know where the rental housing is going to be on Page 81 where they start talking about more downtown employees can afford to rent in the City than can afford to buy... But our rental housing stock is going down rather than up. Where are they going to have the housing supply?

"The project would tend to contribute to increasing housing prices and decreasing vacancy rates in San Francisco... I think that statement should be beefed up."

Commissioner Bierman: "The housing goes without saying. The housing concerns I just think are massive."

Chairperson Dearman: "Just how much of the downtown office force is going to be paid but they can't afford to buy a single family house because you can't buy a house in San Francisco for under a hundred thousand dollars; and if you're only making twenty-two or twenty-three, you can't qualify for that loan. So they will want to rent. Well, you know that our rental stock is going down."

Commissioner Starbuck: "...there's a ramification that if you do build $250,000 condominiums Downtown, then you won't have to convert apartments."

RESPONSE

In response to many of the above comments, the "Housing" section on pages 81 and 82 has been deleted and replaced with a section which is summarized below:

The Housing section estimates the demand for housing in San Francisco and in the Bay Area as a result of the project, and the ability of movers to buy a home in San Francisco. It discusses the possible rise in rents as the demand for housing increases at a more rapid rate than the supply.

Footnotes /11/ and /12/ on DEIR page 89 have been deleted and replaced with the following:

> "/11/ See Appendix C, page 289, for derivation (found on page 43 of these Comments and Responses).
>
> "/12/ This estimate is derived by assuming, based on the SPUR study, that the workers who move will be roughly equally divided between married and single workers. For married workers, San Francisco workers per household were estimated based on the labor force participation rates of spouses of employed people and adjustments for unemployment and the disribution of employed San Francisco residents between jobs inside and outside San Francisco. For unmarried workers, it was assumed that half of them have another adult in their household. Using the labor force participation rates of single people, and making the same adjustments as in the case of spouses, an estimate of the number of San Francisco workers in unmarried households was derived (U.S. Department of Labor, Bureau of Labor Statistics, "Marital and Family Characteristics of the Labor Force,

March 1979," Special Labor Force Report 237, January 1981; San Francisco Planning and Urban Renewal Association, Impact of Intensive High Rise Development on San Francisco, June 1975.)

"/13/ The purchasing ability of workers was estimated based on the following data sources and assumptions:

"- Data from the SPUR study on the marital status, occupations and incomes (adjusted to 1981) of Downtown workers;

"- Data on the number of workers per household (see footnote 12 above);

"- Data from the ABAG Bay Area Housing Profile on the percentage of non-San Francisco households in the Bay Area that own their house;

"- Data on average Bay Area housing prices and rates of housing price increases during the 1970s;

"- Assumptions about the relative likelihood of single and married workers to own a house, clerical and non-clerical workers to own a house, and clerical and non-clerical workers to be married;

"- The assumption that 15% of all homeowners sell their houses each year.

"Based on these assumptions, worker households were distributed according to their occupation, to whether there was another worker in the household, and whether they owned or rented. The income of each category of household was then calculated based on wage data by occupation. This resulted in worker households being distributed (as a percentage of the total) as follows:

	Income				
	$14,500	$31,400	$40,200	$48,400	$57,200
Rent	12.1%	16.4%	3.9%	4.9%	2.7%
Own	11.7%	23.6%	6.3%	11.9%	6.5%

"The owners were distributed into seven categories based on how long they owned their houses. Their equity was then computed based on present and historical housing price data and the assumption they initially purchased with a mortgage for 80% of the purchase price. As a result, equities ranged from $42,000 to $100,000. The incomes and home equities of each group were then used to estimate their home buying ability. It was assumed that buyers would use all of the equity in their old home as a down payment and then borrow as much as they could with a 30-year mortgage at 15% interest. Their borrowing would be limited by lenders' requirements that mortgage payments, taxes and insurance not exceed one-third of household income. For renters, it was assumed that 10% of them could afford a down payment to buy a house. All others would continue to be renters. (San Francisco Planning and Urban Renewal Association, Impact of Intensive High Rise Development on San Francisco,

June 1975; Association of Bay Area Governments, "1970-1975 San Francisco Bay Area Housing Profile," November 1977; Real Estate Research Council of Northern California, Northern California Real Estate Report, Volume 32, Number 3, October 1980.)"

The numbers on footnotes /13/ through /30/ on pages 89-92 and their references in the text on pages 82-88 have been re-numbered accordingly.

A new Housing section of Appendix C has been inserted begining on page 289 at the conclusion of the section on "Residence Patterns of Downtown Office Workers." This addition follows below after all other responses to housing comments.

The displacement of low-income renters would not increase Federal expenditures on community development block grants (CDBG) and would probably not increase San Francisco's share of such grants. CDBG funds are distributed on the basis of complicated formulas. Under the formulas, however, an increase in housing prices or rents would not result in more funds for San Francisco. The formulas, instead, distribute funds on the basis of such factors as population, minority population, low-income population, condition of the housing stock, and housing vacancies. Increased demand for housing could tend to increase San Francisco's share of CDBG funds by lowering vacancies, but could also tend to reduce the City's share to the extent that rising housing prices forced minority or low-income residents out of the City. Even if San Francisco's share of CDBG funds increases as a result of Downtown highrise growth, as Mr. Elberling suggests, the increase would be very small and would not result in an increase in Federal CDBG expenditures. The Federal budget establishes CDBG expenditure levels and, if San Francisco becomes deserving of more CDBG funds, its share would be increased by reducing the share that other cities receive. Thus, if highrise growth results in San Francisco receiving more CDBG funds, the effect would not be that San Franciscans would have to pay more in Federal taxes. Instead, San Francisco would receive back from the Federal government a greater share of the taxes its residents paid. (A. Kaplanis, San Francisco Office of Community Development; D. Roos, Community Development Representative for San Francisco, U.S. Department of Housing and Urban Development; telephone conversations, March 24, 1981.)

As explained in the "Residence Patterns of Downtown Workers" section of Appendix C, beginning at DEIR page 289, an increasing percentage of Downtown workers can be expected to live outside San Francisco. This will tend to increase the average distance commuted, the average energy use and, perhaps, the average cost of commuting for Downtown workers.

The supply of dwelling units in San Francisco has not dwindled. According to preliminary 1980 Census counts, the number of housing units in San Francisco increased from 310,402 in 1970 to 316,094 in 1980. The proposed project would not eliminate any housing units or convert any residence hotels to other uses. Converting apartments to condominiums does not eliminate housing units, but does eliminate rental units, reducing availability of San Francisco housing for downtown workers at the lower end of the economic scale.

As pointed out in the "Residence Patterns of Downtown Office Workers" section of Appendix C, beginning at DEIR page 289, 37-41% of all workers in the new

building would live in San Francisco. That does not mean that 37-41% would move into San Francisco. Because the new jobs and the new employees in San Francisco would not necessarily be located in the new building (i.e., some of the new employees may occupy previously existing office space that becomes vacated by tenants and employees who move their work place to the new building), the workers in the new building would be generally typical of all San Francisco workers. Therefore, most of these 37-41% would already live in San Francisco. Before working in the project, most of them would either have worked at a job in another building in San Francisco, a job outside San Francisco, or not have worked. Those who would move into San Francisco would either occupy new housing units or would replace other households in existing housing units.

As described in the new Housing section of Appendix C beginning on DEIR page 289 (see below), office growth is only one of the many factors causing housing prices to rise.

Few construction workers would move into San Francisco because of this project. As mentioned elsewhere, 12,000 construction workers are members of local unions affiliated with the San Francisco Building and Construction Trades Council. Ninety-five workers, or 0.8% of the local union membership, would be required on this project. That would not be expected to represent a sufficient increase in demand for construction workers to move into San Francisco in response to job opportunities.

It is estimated that about half of all downtown worker households living outside the City could afford to buy a $100,000 home. The derivation of this estimate is explained in footnote 3 of the revised housing impact section. If those who move into the City are representative of the pool of non-resident downtown workers, about half of them could afford a $100,000 house.

The addition to Appendix C referred to above is summarized as follows:

The housing impact section estimated that 15 to 30% of the people who would become employed in San Francisco as a result of the project would move into San Francisco as a result of getting their new jobs. This Appendix will explain the derivation of this estimate and discuss some of its implications.

20. MULTIPLIERS AND SECONDARY PROJECT IMPACTS

COMMENT

Sue Hestor: "And here we have the famous multiplier effect on Page 77. Why is it only used for jobs?... because no one wants the negative things that this project creates like air pollution and housing to be on the table.

"I would question on Page 78 the statistic that says 37 percent of the jobs that are going to be created are... blue collar jobs. I looked at Footnote 4, and I seriously question the reliability of the author of that study... It says based on occupational distribution of employment in industries. It is the author's conjecture.

"Well, I would like to note at the top of the page on Page 79 where you're talking about employees who live in the City and through their expenditures where are these jobs going to be created, these secondary employment jobs for downtown, if that space is being lost in the City? I have a real problem with that, and their source is the Bank of America EIR; and the Bank of America EIR was not for downtown office buildings. It was for a computer center.

"I have a problem with Table 10. That study is a seven-year old study based on fourteen-year-old data, and it shows the employment mix in the Bay Area. Now... the papers that I read say that manufacturing jobs in the Bay Area are on the rapid decline especially in the East Bay. They have paint factories being closed. They have an automobile plant at Milpitas being closed or temporarily shut down... When you add to this services and government enterprises and you start seeing Reagan cuts in the Federal government that will affect both State and Federal governments as well, post-Prop 13, the State government cutbacks and the City cutbacks, I think that you also have to pull into question the percentage of people coming into government in San Francisco. I don't think a 14-year-old data base is sufficient to understand the employment picture and to therefore project this massive amount of blue collar employment rippling out from this project because if it's based on some automobile plants in the East Bay that are going to close, there's a lot of jobs in those plants.

"Again, the multiplier effect isn't there on Page 95 for traffic; and one of the things that I don't understand is if they're going to have a multiplier effect, that's going to require additional restaurants and types of retail spaces downtown, spaces that have a very heavy traffic demand because of truck deliveries; and a multiplier effect doesn't take into account the demand for coffee shops... restaurants... gift shops, all of which get deliveries during the day and are not amenable to the kind of solutions that this building is used for rather than a Bank of America at nighttime and coming up through cargo docks in the rear.

"The impacts on transit don't include the multiplier effect.

"The growth inducing impact on Page 127. I would like to know where the retail goods and food services are going to be supplied that they are going to demand here. I would like to know where the 280 additional jobs that are going to be supported by these jobs in the multiplier effect are going to be supplied. I mean, are they supplied somewhere outside of San Francisco? I mean, what is the multiplier effect in terms of San Francisco because that's kind of glossed over here."

RESPONSE

There would be secondary impacts on housing and air pollution as a result of the secondary employment impacts of the project. Estimating these impacts generally requires specific knowledge about the secondary employment, such as where in San Francisco it would be located. As there is no reliable way to estimate such detailed information about the secondary employeemnt, it is not possible to estimate these secondary impacts with an acceptable degree of accuracy.

The occupation distribution of employment within industries is not "the author's conjecture." As noted in footnote 4, it is derived from the California Employment Development Department's publication, San Francisco-Oakland Manpower, 1975-1980. According to that publication, occupational distributions were determined as follows:

> "For 1970, the base year, the proportional distribution of occupational employment within each detailed industry is the same as that reported in the 1970 census. Projected occupational employment was obtained by applying expected changes in industry staffing patterns to the 1970 base year proportions of occupational employment within each detailed industry. Modifications of base year occupational distributions for California were supplied by the BLS in the form of 'occupational change factors'." (Page 114.)

In other words, the distributions are based on detailed data collected in the 1970 Census and updated by data supplied by the U.S. Department of Labor's Bureau of Labor Statistics (BLS).

The use of the Bank of America EIR for estimating employment multiplier effects is not invalidated by the Bank of America building's location outside of the Financial District or its function as a computer center. For example, the percentage of expenditures made in San Francisco by San Francisco residents employed in the City will be similar regardless of where in the greater Downtown area those people are employed. People working on Montgomery Street are just as likely to purchase their lunches in San Francisco as are people working on Van Ness Avenue. Employees of a computer center are not likely to have incomes and expenditure patterns sufficiently different from other office workers to make the Bank of America inapplicable.

The source for Table 10 is San Francisco Bay Area Input-Output Model 1967, 1974, published in July, 1978. It contains input-output tables based on both 1967 and 1974 data. Table 10 is based on the 1974 data. This is the most up-to-date source available and is still considered reliable. According to the authors of the input-output table, the technical relationships and trade patterns of the model are based on recorded transactions. Historically, changes in technology, relative prices (as opposed to general inflation), and regional import patterns occur slowly, which allows the same model to be used over a period of years.

Though newspapers may highlight factory closings, manufacturing employment has actually grown in the Bay Area since 1974, both in numbers and as a percentage of total employment. According to the Employment Data and Research Division of the California Employment Development Department, Bay Area manufacturing employment grew from 374,700 in 1974 to 464,300 in October 1980. As a percentage of total Bay Area employment, this was an increase from 19.37% to 19.42%. Government employment has also risen from 392,800 to 423,100. As a percentage of total Bay Area employment, however, it has declined from 20.30% to 17.70%. Most industries' shares of total employment have remained stable between 1974 and 1980. The only significant shifts have occurred in two primarily white-collar industries: government and services. The decrease in governments' share of employment was almost exactly offset by the increase in service industries' share. This similarity of employment distributions in

1974 and 1980 validates the applicability of the 1974 input-output table to the task of estimating secondary employment impacts of the project.

The 280 jobs referred to on DEIR pages 79 and 127 would be jobs in San Francisco created by the consumer expenditures of employees in the project. This is explicitly stated on page 79.

21. TRAFFIC IMPACTS AND TRAVEL DEMAND ANALYSIS

COMMENT

Sue Hestor: "On Page 47... intersection capacity and ratio of congestion traffic on Montgomery and Sutter and Sutter and Kearny, the level of service [is] going to be affected by the Crocker Bank Building at both Montgomery and Sutter and Sutter and Kearny, and I have a problem with that.

"On Page 93, the travel demand analysis... I had a real hard time plowing through that section. It's very technical in lingo. EIR's are supposed to give information to lay people like myself. It's real jargonistic.

"There's no cumulative impact discussion of traffic on Lombard, Harrison, Market, Pine, Bush, Geary... Why do we cringe at analyzing the impact on traffic in the neighborhoods?"

R.W. Sieker: "We agree that this project by itself will not generate significant impacts on traffic operations and on transit facilities; however, there is concern of the cumulative impacts of the numerous high density developments in this core area that collectively may overload existing and proposed traffic...facilities."

RESPONSE

Traffic counts for Montgomery St. at Sutter St. and Kearny St. at Sutter St. were made after removal of the Lick Garage. Analysis of the same intersections in 1979 for the Crocker National Bank Northern California Headquarters EIR (EE78.298) show volume to capacity (V/C) ratios of 0.53 (Level of Service A) for Montgomery at Sutter and 0.68 (Level of Service B) for Sutter at Kearny. Compared with the V/C ratios shown in Table 5, DEIR page 47, the removal of the Lick Garage improved conditions at the Montgomery St. intersection and at the Kearny St. intersection by one level of service. As the Lick Garage had 450 spaces, and the new Crocker Building is proposed to provide 100 spaces, the magnitude of local traffic due to neighboring projects would not be expected to increase over 1979 conditions.

The travel demand analysis that appears on DEIR page 93 is necessarily technical in nature. It is included in the DEIR text, rather than in an appendix, because it is a prerequisite to the reader's understanding of the traffic and transit discussions which follow. While the section may be more difficult to read than many of the others in the EIR, the information is presented in an orderly and complete manner using standard dictionary definitions.

As indicated on DEIR page 94, cumulative traffic impacts were assessed at freeway feeder streets near the downtown ramps, where projected traffic volume increases could be quantified with a resaonable degree of accuracy. Analysis of future traffic growth from specific projects on streets removed from these freeway ramps was considered infeasible, as the assumptions needed to assign traffic to the streets could not be credibly supported.

As indicated on pages 102-106 and pages 212 and 213, the effects of downtown buildings other than the proposed project were included in the traffic analysis for cumulative conditions.

22. PARKING IMPACTS

COMMENT

Sue Hestor (for Carl Imparato): "On Pages 5, 105, and 143, there is a discussion of parking demand, and the parking demand is restricted to a 28-block study area... Because parking impacts range much wider in that area... the study area should be all of Downtown because there really is an increased willingness for people to [walk in] from large lots, and the parking demand problem is complicated from projects not only right across the street from this project but also projects half a mile/three-quarters of a mile away.

"On Page 106, there is more emphasis needed on the parking problems that are being created in the neighborhoods. Those of us who live in the neighborhoods see the effects as people get socked with $7 to $10 charges with parking downtown and avoid it by parking all over the City and taking Muni..."

RESPONSE

The Department of City Planning "Guidelines for Environmental Evaluation of Transportation Impacts" (June 1980) provide no specific guidance for delineating parking survey areas for environmental evaluations. The guidelines do suggest, however, that Muni lines within 2,000 feet of project sites be examined. As the 2000-ft. Muni guideline does represent an approximate reasonable walking distance (8-10 minutes), it has been applied in determining the parking survey area for this EIR. Parking survey areas vary with each EIR because each is centered on a different site and because no standard guidelines are available for defining these survey areas on a case-by-case basis.

The parking survey study area is shown in Figure 17, DEIR page 48. Cumulative future parking demand within this study area is addressed beginning at DEIR page 105. Possible parking deficits outside the study area, to which the project would contribute only a relatively small and unpredictable amount, would be impossible to quantify reliably or to relate directly to the project. Cumulative parking impacts, including parking in the neighborhoods, are addressed qualitatively on DEIR page 106. Use by commuters of on-street parking in the neighborhoods has provided impetus for the preferential parking permit system.

23. TRANSIT SERVICE

COMMENTS

John Elberling: "In the cumulative transit impacts on Page 107... they try to indicate that... there's excess capacity still in the peak hour on Muni for downtown and... we all have a hard time reconciling those statements in the EIR with our getting on a bus. The Muni does not usually get the full level of scheduled service onto the street... the actual service onto the street does not conform to what they're analyzing here in terms of the scheduled capacity.

"Second of all, they should indicate that under these circumstances, people will experience delays... They have to wait for one or two buses later on, and they experience a great deal of personal discomfort on the very overcrowded buses during what they call the peak of the peak conditions."

Sue Hestor (for Carl Imparato): "One of the other problems is that the Muni demand is never really quantified in terms of peak cumulative demand impact in this EIR. That is a serious flaw because that is what Muni has to yield to.

"The second problem along Muni is that there is no analysis on Pages 99, 41, or 45 about secondary riders on Muni. It's explicit somewhere in the EIR that they are neglecting to say anything about this. But an awful lot of people take an automobile into San Francisco or take SP into San Francisco and use Muni for part of their trip, and these traffic analyses and the impact on Muni neglect those people."

Sue Hestor: "... the chart on... page [41] shows the East Bay and North Bay as having zero workers from that area who ride Muni. Now, the North Bay is Marin County, and I don't believe that. People from Marin County come across the bridge, park in our neighborhoods and take the Muni. People from the East Bay do it as well, especially those who come up from the south across [the Hayward-San Mateo Bridge].

Commissioner Bierman: "In terms of overcrowding downtown, I've been taking Muni Metro lately -- and I don't care what this says about peak of the peak time, you are jampacked in that newest of systems... That's supposed to be the best. The day before yesterday, I got on at the Powell Street Station, so that by then everybody from the Embarcadero area was on... It was 5:20 in the afternoon, and it was absolutely jammed. You couldn't move. Finally one person got up, and somebody got a seat. But one of the comments I had was that maybe there has be be a reassessment of what's full and when transit is jampacked because I don't believe the figures in here."

R.W. Sieker: "...there is concern [that] the cumulative impacts of [downtown development] may overload existing and proposed...transit facilities."

RESPONSE

The ridership and capacity figures discussed on DEIR page 107 and shown in Table D-5, page 217 are taken from schedule field checks made by Muni staff during p.m. peak hours of operation, not from printed schedules. If runs were

missed on the days the schedule checks were made, the missing runs were not included in the capacity calculations.

The commenter is correct in the observation that transit patrons would experience delays to take advantage of excess capacity available at the peak of the peak condition. The choice between waiting for a vehicle with seats available or boarding an already loaded transit vehicle is subjective and varies among individuals.

As indicated on DEIR page 217, average peak-hour Muni riderships for selected Downtown routes are 137 percent of seated capacity (89 percent total capacity). As indicated on DEIR page 107, some of these routes approach 100 percent of total capacity during portions of the peak hour. Note that a typical bus loaded to 100 percent of its "total" capacity would have about 27 standees, a condition which many riders would find very crowded. The conclusion in the EIR that the Muni would not generally exceed "total capacity" is not intended to imply that Muni riders would not find conditions "jampacked". The cumulative transit analysis on DEIR page 107 discusses the cumulative demand on the Muni during the peak hour. Only primary trips were included in projections of Muni ridership due to the project, because available data are inadequate to permit reliable projections of secondary ridership. Base-case ridership projections, however, are based on field check data, and therefore do include any secondary Muni users.

The following is added as paragraph 2, at DEIR page 107:

> "To the extent that future available auto parking becomes more removed from the Downtown area, the number of auto commuters who use transit as a secondary mode of transportation may increase from levels projected in Table 21, thus contributing further to transit crowding."

24. AIR QUALITY

COMMENT

Sue Hestor: "On Page 52, I again have a problem with the monitoring station or air pollution station on Ellis Street which is way, far away from this area and will continue to point it out as long as it goes in the EIR's."

RESPONSE

As indicated on DEIR page 52, the Bay Area Air Quality Management District (BAAQMD) operates an air quality monitoring station at the ninth floor level of 939 Ellis St., approximately 1.2 miles west of the site. As indicated on DEIR page 221, "...it is not clear how well [these] measurements represent conditions at street level near the station or elsewhere in the City." The projected daily project-generated emissions shown in Table 22, DEIR page 110, are based upon emission factors derived by the BAAQMD and the U.S. Environmental Protection Agency, and do not depend upon the accuracy or applicability of BAAQMD data for their validity.

25. ENERGY

COMMENT

Sue Hestor: "I have a further problem as I have alluded to earlier on Page 54 on energy: that the urban areas are not honest about the pollution; that they are going to generate both water and air pollution by making demands on energy that will cause offshore drilling and that will cause coal plants either in the eastern part of California or out in the western desert -- and I don't think we're being honest. We're shifting the focus onto the Indians who lived in those areas or to the residents of rural areas in Utah. We're shifting the problem onto the coastal communities, and we don't think of ourselves as a coastal community even though we are.

"This Commission and the Board of Supervisors and the Mayor will write outraged letters when they start considering drilling out here and up to the Santa Barbara Channel, and if the decisions that this Commission makes cumulatively makes the demand for automobile gasoline greater or expensive electricity for elevators in 40-story office buildings -- and you don't even have a solar requirement."

RESPONSE

The project would contribute incrementally to the demand for nonrenewable energy resources which lead to the exploration for, and extraction of, oil and coal. The quality of the environment in areas that could be affected by such activities is intended to be protected by Federal laws and regulations such as the National Environmental Protection Act, the Surface Mining Control and Reclamation Act, the Clean Water Act, the Clean Air Act, and the administrative regulations of the Environmental Protection Agency. Recent Federal proposals to reconsider oil drilling off the Northern California coast are related to nation-wide fuel and oil demand and to Federal policies to reduce oil imports, not specifically to Bay Area growth. Any future power plants located in the California desert or in Utah would serve primarily the growing "Sun Belt" areas of the United States, and only rarely, if at all, would power be purchased from developer utilities by PG&E.

As indicated in paragraph 4, DEIR page 137, "use of solar energy has been rejected as inefficient, uneconomic, and duplicative of other HVAC systems, which would still be required."

26. POLICE SERVICES

COMMENT

Sue Hestor: "Page 55. In the analysis of police services required, I realized for the first time that when you're talking about this in comparison to others, you're talking about an area that's actively used eight to nine hours a day versus other areas... that they use 24 hours a day."

RESPONSE

Statistical data for all reporting areas of the San Francisco Police Department are recorded on the basis of a 24-hour day. A total of 711 incidents were recorded in the reporting area of the project site in 1979. As indicated on DEIR page 55, this total was slightly below average for all reporting areas in the Central District.

27. BUILDING CONDITION, SAFETY AND CONDEMNATION STATUS

COMMENT

Sue Hestor: "Page 61. I have a problem with this casual reference to the building's current state of disrepair. Buildings get into disrepair because owners let them deteriorate, and I don't think it's fair to imply, state, or whatever that somehow these buildings are fire hazards; that they must come down, without stating that the reason why they are fire hazards is that the owners have not taken corrective measures; the owners have not fixed the parapets..."

Commissioner Bierman: "Are these buildings condemned?...The way this reads, it's as though the buildings have been ordered demolished."

Gray Brechin: "The statement 'The buildings (occupying the project site) generally consist of unreinforced brick and masonry construction...' is too general and gives the impression that the California Pacific Building is a grave seismic hazard. It does not accord with the statement concerning the California Pacific Building in the Appendix: 'The structure is of concrete and steel construction...' (p. 174). This exception should be made in the text."

Commissioner Karasick: "The unreinforced brick and unreinforced masonry buildings that I have seen, there is no way to bring them up to code. It is almost impossible to bring them up to code...You've got to build a whole shell within a shell. It's extremely, extremely expensive."

RESPONSE

As indicated on DEIR pages 57, 60 and 61, the buildings that occupy the project site were built prior to adoption of the present life safety and seismic provisions of the San Francisco Building Code. The EIR does not state, nor is it intended to imply, that the failure of the structures to comply with these code provisions is the result of any condition of "disrepair" or "deterioration". The project sponsors have not improved the structures because it is their present intention to demolish them.

As indicated in DEIR pages 60 and 61, the "...Department of Public Works, Bureau of Building Inspection, has cited the buildings on the project site for violation of the parapet safety provisions of the San Francisco Building Code and has requested that the buildings be ordered vacated, repaired, altered or demolished" (emphasis added). The buildings have not been ordered demolished (i.e., condemned) pending action on the proposed project.

The following underlined passages have been added to DEIR page 60, paragraph 5, sentence 2:

> "Except for the California Pacific Building, which has a steel frame, the buildings on the site generally consist of unreinforced brick and masonry construction with some overhanging cornices, brick cladding and terra cotta ornamentation."

The last sentence on DEIR page 154 has been deleted and the following paragraphs added:

> "A structural evaluation of the California Pacific Building, dated March 13, 1981, was completed by Robert S. Gefken, structural engineer (Lic. No. S-1142). The evaluation describes the building as consisting '...of a steel frame supporting reinforced concrete slabs at the floors and roof. The beams, girders, and interior columns are fireproofed with concrete; whereas, the exterior steel columns are enclosed by unreinforced brick masonry. The blind wall on the north side of the building is reinforced concrete; however, the three other walls on Trinity, Sutter, and Montgomery Street are unreinforced brick.'
>
> "At the request of the engineer, the beam and column connections at the second floor were exposed in order to make an evaluation of the lateral connection. The only [earthquake-resistant] connections found were at the perimeter columns. The connections consist of an angle 5" x 3 1/2" x1/2" riveted to the top and bottom flange of the beam at the 5" leg; the 3 1/2" leg is riveted to the flange of the column. The web of the beam is connected to the column with one angle which is also riveted.
>
> "The only floor that has lateral capacity is the basement. There, the perimeter beams are connected to the columns with deep gussets that could develop some lateral resistance. The interior beams and columns in the basement are similar to those of the second floor, and do not contain any moment resistant connections.
>
> "In summary, the evaluation finds that the building has little lateral capacity in view of the weak beam to column connection. The in-fill walls around the perimeter are unreinforced brick, and would be an 'extreme hazard' if they fell during a large earthquake. Therefore, the building may be constructed to be 'very weak laterally, and would require a major bracing system in order to make the building safe for future quakes.'
>
> "Cahill Construction Company estimates that the total additional capital required to incorporate the California Pacific Building into the project would be approximately $0.7 million, and the annual net loss in income due to the alternative, including reduced rents in some areas of the buildings, loss of square footage, and debt service on additional capital, would be approximately $1.0 million, relative to the proposed project (see Appendix R-1).
>
> "Members of the Foundation for San Francisco's Architectural Heritage reviewed the financial information supplied by the Cahill Construction Company and prepared another analysis with a different result. Heritage

encourages the choice of a project which would retain the California Pacific Building. Using Cahill Construction Company's full construction costs and using net rental income based on conservative market estimates for 1983 occupancy, Heritage estimates that the renovated California Pacific Building would show a reasonable profit of 25% annually for the project sponsor. Heritage also suggests that the sale of the California Pacific Building would be profitable for the project sponsor, and that the 101 Montgomery project would be economically successful with or without the California Pacific Building (see Appendix R-2)."

28. CONSTRUCTION IMPACTS

COMMENT

Sue Hestor: "I have a problem when you look at the bottom of the page on the project's schedule how this schedule interfaces with the construction of the Crocker Bank across the street because my understanding from having been in that area a lot... is that traffic is an absolute mess right now... because of Crocker and... after six o'clock... Kearny Street comes to a halt because they have trucks going all night there. How will this project work in terms of the construction schedule with Crocker Bank? I have a feeling the traffic and the problems with Muni are going to be... severe when you have two... substantial projects going on right across the street from each other."

RESPONSE

The principal construction haul route for the Crocker project is north on Kearny St. to Post St., east on Post St. to Montgomery St. and south on Montgomery St. (E. Barnum, Construction Superintendent, Dinwiddie Construction Company, telephone conversation, March 30, 1981). The principal haul route for the proposed project would be south on Montgomery St. to Sutter St., west on Sutter St. to Kearny St., and north on Kearny St. The principal haul routes of the two projects would therefore not overlap. However, should construction vehicles from the proposed project exacerbate traffic conditions on Crocker haul routes, the project sponsor would reroute project traffic, to the extent feasible, at the request of the Department of Public Works (see also Topic 35).

29. FINDINGS AND TREATMENT OF SIGNIFICANT EFFECT

COMMENTS

John Elberling: "Again, when they list employment and housing effects, you can see the section on housing impact is not even two full lines. It needs to be expanded significantly."

Sue Hestor: "I think it has reached the point that you must find significant adverse environmental impact on housing and on transit and not approve the project."

RESPONSE

The City Planning Commission has until recently found that individual proposed downtown office buildings would not have significant environmental effects, although findings have also included statements that downtown development as a whole would have significant cumulative impacts on factors such as transportation and air quality. Beginning in 1981, the Commission findings have included significant impacts on housing demand as well as transportation and air quality. Findings of significant environmental effect in the context of the California Environmental Quality Act in all cases must be based on information supplied in the EIR.

For a definition of the term "significant" effect on the environment, see Guidelines for Implementation of the California Environmental Quality Act, as amended through April 8, 1980, California Administrative Code, Title 14, Division 6 (hereinafter referred to as State EIR Guidelines), Section 15040. For an explanation of the process for deciding whether an effect is significant, see Sections 15080 - 15084 and Appendices H and I. For examples of effects that are often found to be significant, see Appendix G. For findings which must be made to approve projects that would have significant effects, see Sections 15088 and 15089.

DEIR Section VI, page 140 contains capsulized discussions of potentially significant environmental effects. These effects are discussed in detail in DEIR Section IV, beginning on page 63. The capsulized discussions are as brief as possible to avoid unnecessary redundancy within the report. For detailed discussions of each effect, the commenter is referred to Section IV.

30. ALTERNATIVES

COMMENTS

John Elberling: "On Page 154, the very last sentence at the bottom of the page: On the alternative of keeping the existing buildings on either side, the tower would be out of style and scale with the existing buildings.

"Well, they should add that only if the architect does not have the competence to come up with a design that can successfully relate the structures.

"In a discussion of the alternative that includes housing in the project on Page 157, we find generalizations about how it would reduce commuter traffic, transit and parking demand, noise and air pollution levels... We need some [numerical] estimates to properly evaluate how good an idea it is to have a combined office-housing development as this alternative envisions, and it should also pay a little more attention to the energy and air pollution benefits of the reduced commuting than they probably will want to otherwise.

"Also, in the next paragraph it lists a lot of negative urban design considerations. They ought to list the positive ones, certainly the liveliness during the evening and weekend days that would be brought to the area if it were a mixed use project."

"On page 152 we have an architect's rendering [with] the same problem as the other one [:the Equitable Building is not shown]... The project looks great--like its on Central Park...

Gray Brechin: "The view of 'Alternative 4...' on page 152 [is misleading].

"Would it be reasonable to ask for an analysis of what the project might look like under the interim controls that now exist?"

"Because if you look at the alternative project, because the alternative itself is dictated by the old bonus system, it actually is 25 feet lower: that is, two floors lower than the desired project. Now, if those two floors were allowed to the developer, he could not only save the California Pacific Building but he could also have his desired slot next to the Alexander building, and the building would be as tall as the project he already wants. It's a very good example of how the old bonus system encouraged the demolition of old landmark structures."

Sue Hestor: "On Page 145, I think the honest rejection of Alternative 1 is that they won't make enough money -- and that has to be in here... This is a money-making project, and they tell you that at the beginning.

"Similarly, Alternative 6 on Page 157. The sponsor's reasons for rejecting the alternative with housing is it wouldn't be as profitable. That's the real reason why it's not going to be in the EIR."

Commissioner Bierman: "One of the reasons for not building the housing...is that the air quality is so bad, and I want to really point out that there are living, breathing, humans -- thousands and thousands and thousands down there -- eight to ten hours a day, maybe nine hours,...walking around at noon; and if it's so bad that you can't build housing, then maybe it's too bad for us to be doing all this building. Maybe there really is a severe problem.

"...if it isn't safe for people to live there, then it may not be safe for people to work there -- and I think that's a very, very serious conclusion that's been drawn, and it was drawn by the sponsor or the sponsor's consultant.

"In line with the housing and with Alternatives 5 and 6, talking about $250,000 condominiums used to seem not worth building. ...that's all that's getting built anywhere. A hundred/a hundred fifty thousand we're lucky they come out with. The conversions are all $250,000 -- not all, but many, many are.

"It's housing like that that may help some of us save some of these buildings on Nob Hill from their destruction.

"I am not in favor of the alternative that does that expensive housing, and I wish there was some way to do something else. But for the EIR to presume that we will think that that's so out of the question that it isn't worth building, we deal with that price all the time."

Commissioner Nakashima: "...I would hope that the project sponsor would more seriously consider Alternatives 5 or 6."

Gray Brechin: "Given that a significant environmental impact is indicated by the demolition of two 'B' buildings on the site, the intrusion of the project into what Heritage's downtown inventory has identified as the most important downtown block, and the construction of a building which is a considerable departure in style and scale from this block and much of its immediate older environment, and considering the sponsor's stated attempt to 'complement the...smaller neighboring historic structures,' Heritage feels that there has been an insufficient and cursory attempt made to preserve the pivotal California Pacific Building. More serious consideration must be given this alternative since the sponsors have, even in a most schematic manner, demonstrated that they can very nearly achieve their ends and save the California Pacific Building at the same time.

"The combined GSF of the Alternative and the retained floor area of the California Pacific Building would yield a total floor area of 270,000 GSF. The project seeks 277,000 GSF. The difference of 7000 GSF represents about 2.5% of the proposed project, almost exactly the GSF which the sponsor is permitted as a bonus for demolishing the California Pacific Building and setting the project back from Sutter Street. Ironically, this situation arises because the project was 'grandfathered' under the old bonus system which is no longer in effect; if the bonus was disallowed, the alternative would seem to have the same GSF as the desired project. Would 7000 GSF less make the project economically infeasible, or is the sponsor's rejection of this alternative largely the result of its failure to achieve the maximum GSF permitted? Insufficient economic analysis is given.

"The given alternative has been rejected primarily on the grounds that it would have less than the maximum allowable floor area, it would have limited windows on its north side, and it would block views, light, and air to the south side of the Alexander Building (which would have no views and little light with the desired project). It is further objected that the alternative would require the '...removal of six of (the California Pacific's) eleven rentable floors,' whereas, in fact, the desired project would require the removal of all of them.

"The secondary reasons for the rejection of the alternative are far more questionable. Retention of the California Pacific Building would indeed 'prevent construction of an open, widened sidewalk area on Sutter Street, and would block views of the southeast corner of the adjacent French Bank Building' by retaining the building which, for 71 years, has served as the designed complement of the French Bank Building. The project will, in contrast, violate the French Bank Building in style and scale. Furthermore, the creation of a small, shaded plaza should not be regarded as an amenity, since it will break the continuous wall of the Hallidie block of Sutter Street, thereby violating the City's own urban design policies. Finally, it must be admitted that the alternative would, indeed, 'be out of style and scale with both the California Pacific and Alexander Buildings,' but the DEIR has already stated that the desired project would be considerably out of style and scale with its surroundings anyway. It would be far better to have this project incongruous with the California Pacific Building than with the entire Hallidie block of Sutter Street.

"Summary
Given the project's adverse environmental impact on an outstanding area, Heritage strongly feels that more consideration should be given to Alternative 4, especially since the project's form and size were largely dictated by the old bonus system. Alternative 4, as presented, is to a large extent the same project moved slightly north where it labors under different constraints. Given a firmer commitment to preserve the architectural and historic qualities of the area, a far more creative solution might be found which would better serve both the city and the sponsor. We ask that the DEIR not be certified until such an effort is demonstrated."

Commissioner Nakashima: "The reason for rejecting Alternative 6 is not acceptable and the need for housing is too acute. I would like to know the minimum number of floors and square footage necessary to make this project a profitable one. This should be based on a realistic life cycle of the building and not an artificial one."

Jonathan Malone: "The Landmarks Board would like the alternative of siting the proposed project further to the north, with demolition of the Alexander Building and retention of the California Pacific Building discussed. The Board would like this alternative explored, as the California Pacific Building is an important structure in the contextual scale of the Sutter Street block.

"On page 145, Sponsor's Reasons for Rejecting Alternative 1, inclusion of the statement '[they] violate the parapet safety provisions of the building code' should not be included as a factor supporting the demolition of the five on-site structures. The Board does realize that a certain amount of funds would have to expended to bring these structures into compliance with the parapet safety ordinance.

"On page 148, Sponsor's Reasons for Rejecting Alternative 2, paragraph 1, line 9, 'Costs of seismic reinforcing for the older structures would also be high' is a subjective statement. It should simply be noted that funds would have to be expended on seismic reinforcing."

RESPONSE

The discussion of Alternative 4 that appears on DEIR page 154 refers to a schematically complete design. Observations concerning the requisite "competence" of the architect to reduce adverse design effects of style and scale would require value judgments outside the scope of this discussion.

The impacts of the alternative need not be quantified in an EIR so long as the impacts of the alternative are compared to those of the proposed project and the differences in impacts are stated as in the discussions which appear in the EIR under "Distinctive Environmental Characteristics of Alternatives," DEIR Section VII, beginning on page 145.

The following two sentences have been substituted for sentence 3 in paragraph 2, DEIR page 157:

> "Under this alternative daily building occupancy would be about 90 percent that of the proposed project and would include about 100 residents.

> Because the building residents would probably generate fewer commute-related impacts than would the office workers, the overall impacts of this alternative on traffic, transit and parking demand (and associated fuel consumption, noise and air pollution levels would probably be somewhat less than 90 percent of the levels attributable to the proposed project."

The following sentence has been added as sentence 1, paragraph 3, DEIR page 157:

> "Residential use at the project site could extend the hours of active use of neighboring service and retail facilities."

Figure 28, DEIR page 152 has been modified to show the Equitable Building at the northeast corner of Sutter and Bush Streets (see attachment).

An alternative that would conform to the existing moratorium on the use of floor area bonuses would have an allowable floor area of approximately 203,000 sq. ft. and would consist of 20 floors (see Figure R-1, attached). As indicated on DEIR page 158, such an alternative is not addressed in the text of the EIR because the proposed project has been specifically exempted from the moratorium by the City Planning Commission and the Board of Supervisors. Alternatives that would preserve the California Pacific Building include Alternative 1, DEIR page 145; Alternative 2, DEIR page 146; Alternative 4, DEIR page 151; and Alternative 5, DEIR page 155.

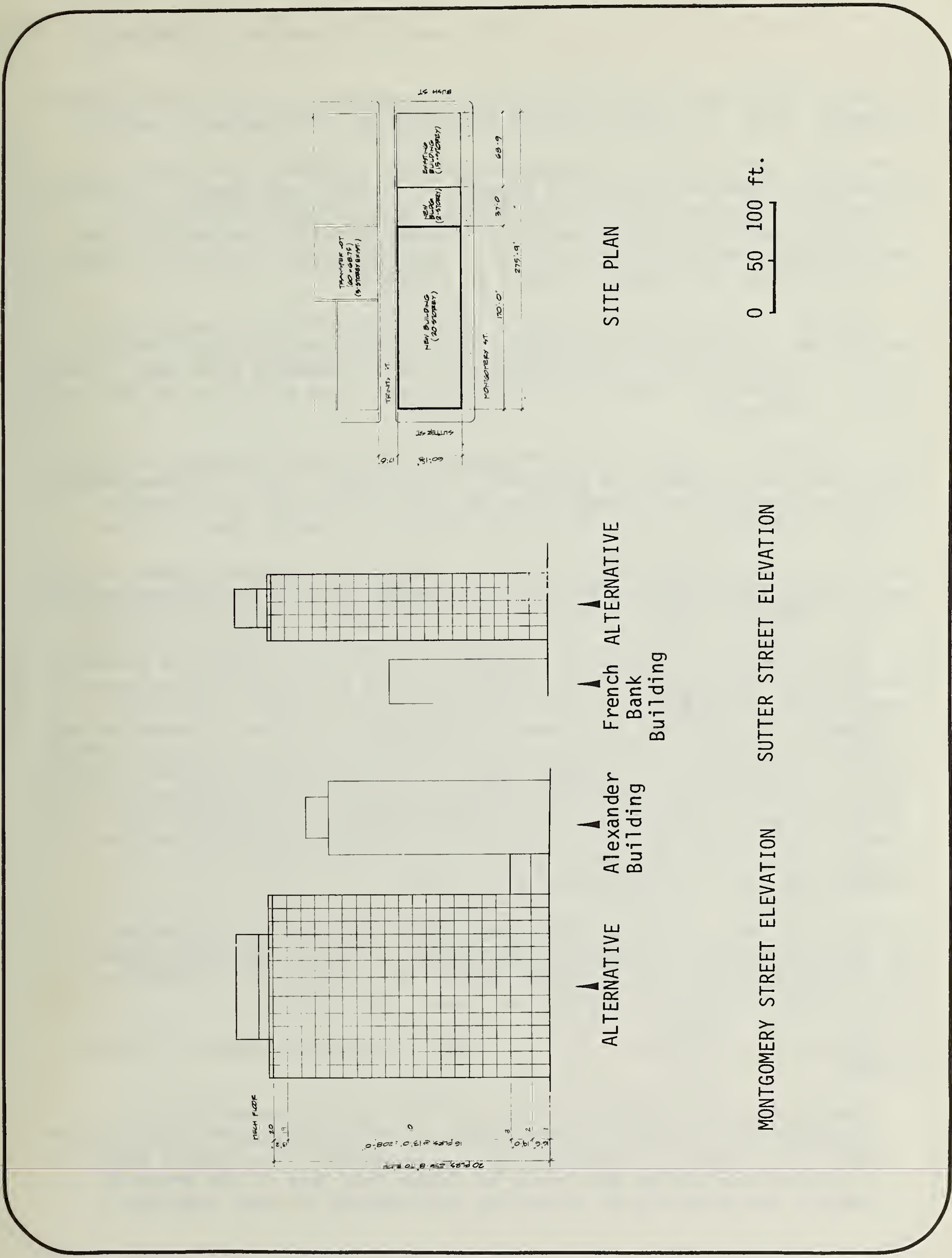
As indicated on DEIR page 8, the sponsor's objectives include realization of a reasonable return on investment. The following passage has been added to reasons for rejection of Alternatives 1, 2, 4, 5, and 6 at DEIR pages 146, 148, 154, 156 and 157: "..., would fail to optimize return on investment..." In a 10-page letter to the foundation for San Francisco's Architectural Heritage dated March 24, 1981 (see Appendix R-1), Cahill Construction Company estimates that the average annual income from an alternative that would preserve the California Pacific Building would be $0.74 million to $1.10 million less than that from the proposed project.

The sponsor's reasons for rejecting Alternative 6, which appear on DEIR pages 157 and 158, do not include possible exposure of residents to hazardous or unhealthful air pollution. The distinctive environmental characteristics of the alternative, which are identified on DEIR page 157, include exposure of "... residents to the environmental conditions of the downtown area, including greater levels of traffic, noise, and air pollution than are common in most outlying residential areas..." This qualitative comparison is not intended to suggest that air pollution levels in the downtown area would be hazardous to downtown residents or others. Air quality in the vicinity of the project site is addressed at DEIR pages 52, 53, 109-113, 221 and 222.

The project sponsor did consider alternatives that would preserve the existing buildings on the site (Alternative 5, DEIR page 155) and that would provide housing on the site (Alternative 6, DEIR page 156). For reasons that appear on DEIR pages 155, 156, 157 and 158, these alternatives were rejected relatively early in the planning process and design graphics were not

SOURCE: William Schuppel & Associates

FIGURE 28: VIEW OF ALTERNATIVE 4 FROM SUTTER AND MONTGOMERY STREETS (REVISED)



SOURCE: William Schuppel & Associates

FIGURE R-1: ALTERNATIVE WITH BASIC ALLOWABLE FLOOR AREA

prepared. Other alternatives that would preserve one or more of the existing buildings on the site appear on DEIR pages 145-148 (Alternatives 1 and 2).

Commenters' observations concerning the relative allowable floor areas of Alternative 4 and the project are essentially correct, and appear in the DEIR at page 151. Because of the relatively high cost of rehabilitating the California Pacific Building (see Topic 27) and because of the reduction in annual project revenues (see above) if it were retained, Alternative 4 would fail to optimize the sponsor's return on investment.

The removal of six of the 11 floors of the California Pacific Building is included as a reason for rejecting Alternative 4 because the floor removal would increase the ratio of rehabilitation cost to rentable area, and, in the sponsor's estimation, would require above-market rents to capitalize the costs of the improvements.

The relationship of the proposed project to neighboring buildings, including the French Bank Building, is addressed in DEIR pages 71-75. The relationship of the proposed widened sidewalk area on Sutter St. to the San Francisco Comprehensive Plan is also addressed in those pages and in Topic 9, above.

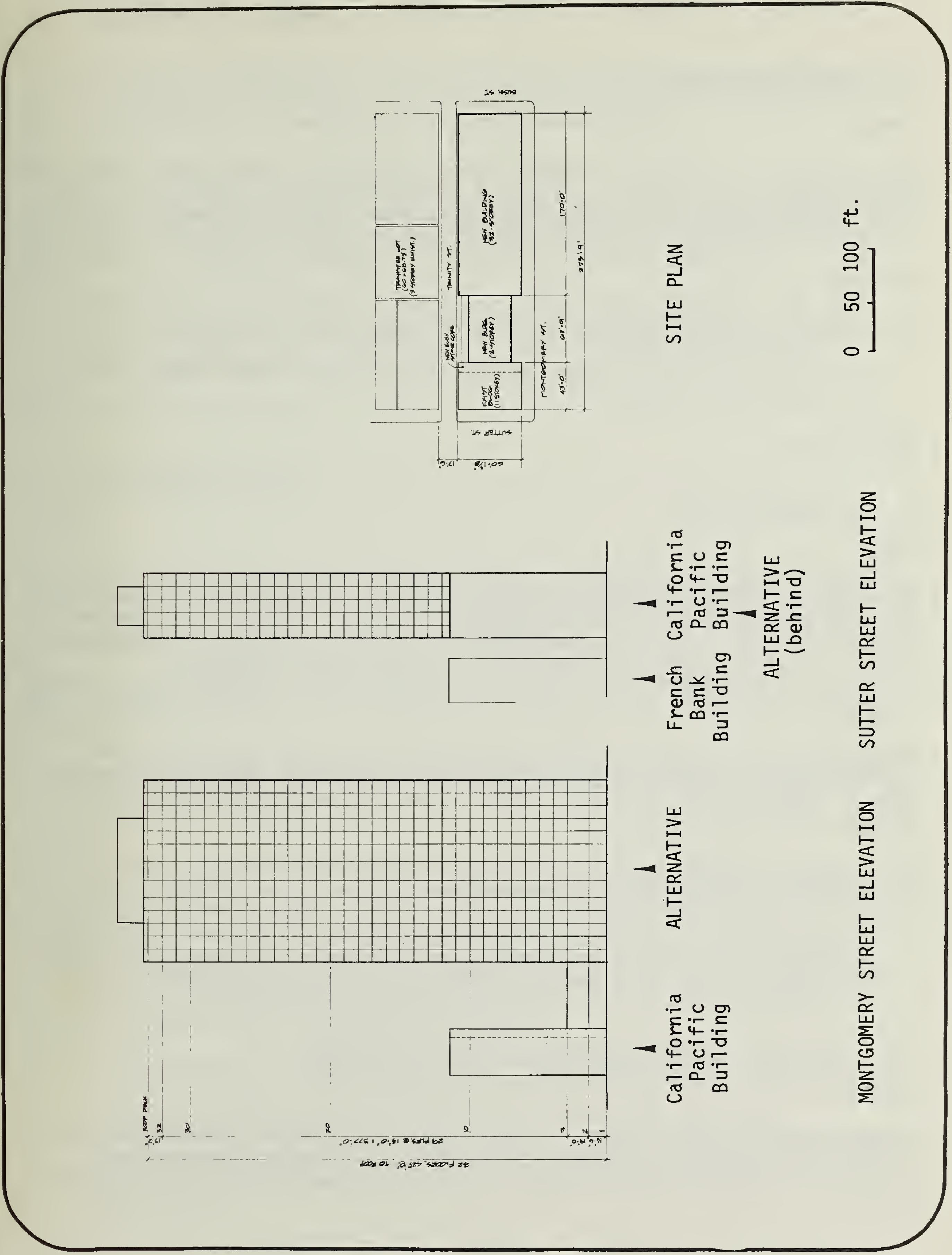
Because of variables and uncertainties in projecting long-term financing costs and rental rates, it is not possible to estimate reliably the minimum building area or number of floors required to make the proposed project "profitable".

An alternative that would require removal of the Alexander Building but would retain the California Pacific Building would have an allowable floor area of approximately 358,000 sq. ft. and would consist of 32 floors (see Figure R-2, attached). The principal environmental advantage of such an alternative over the proposed project would be any perceived incremental architectural benefit gained by preserving the California Pacific Building rather than the Alexander Building. The ADEIR addresses four alternatives that would preserve both the California Pacific Building and the Alexander Building (see Alternatives 1, 2, 4 and 5, DEIR pages 145, 146, 151 and 155). As the suggested alternative offers no apparent environmental advantage over any of these four alternatives, it is not addressed in the EIR.

In presenting the sponsor's stated reasons for rejecting an alternative, the EIR does not attempt to justify those reasons. Instead, the EIR attempts in the balance of the report to present sufficient information to enable the reader to evaluate their efficacy for himself or herself.

DEIR page 148, paragraph 3, sentences 4 and 5 have been changed to read as follows:

> "Costs of seismic reinforcing for the older structures would be approximately $2.5 million, exclusive of life safety systems and interior space development. Construction of six additional floors would result in a construction period that would be longer than that of the proposed project due primarily to scheduling requirements of steel erection."



SOURCE: William Schuppel & Associates

FIGURE R-2: ALTERNATIVE WITH REMOVAL OF ALEXANDER BUILDING

31. MITIGATION, DESIGN

COMMENT

Gray Brechin: "...On Page 129 under mitigation measures, the setback of the project from Sutter Street is cited as a mitigation measure because it reveals the southeast corner of the French Bank Building. In fact, it breaks the wall of the Hallidie block and is thus a negative environmental impact."

RESPONSE

The following sentence has been added to DEIR page 129, paragraph 4:

> "The setback would also interrupt the otherwise continuous facade line of the 100-block of Sutter St."

See also Topic 9.

32. MITIGATION, WIND

COMMENT

Sue Hestor: "The wind factor on Page 71. I want to point out that there is no mitigation for the wind impact in this EIR at all. The wind is a serious problem...it will ripple down Montgomery Street and ripple down towards Market Street. I think you have a right to ask for some wind mitigation."

RESPONSE

Off-site wind effects due to the size, shape, siting or orientation of the proposed project could be mitigated primarily by reducing the size of the tower. Such alternatives are discussed in the DEIR beginning at page 145. See also Topic 32.

The following underlined addition has been made to the mitigation measure which appears as paragraph 3, DEIR page 129:

"- The project would include street-level retail uses, brick paving, widened sidewalks, street trees and planters, and a pedestrian arcade, which would help provide pedestrian scale, interest, and/or wind protection."

33. MITIGATION, BUSINESS DISLOCATION AND UNEMPLOYMENT

COMMENT

Commissioner Nakashima: "There is no mitigation measure to offset the adverse effect of the loss of small retail businesses and food services from the site. The relocation assistance does not meet the requirement of a mitigation measure.

"Under Page 131 B. Employment, Housing and Fiscal Factors, there does not seem to be any measures that answers...the loss of certain types of employment related to the loss of small retail and food businesses."

RESPONSE

Mitigation measures for business and employment dislocation appear in paragraphs 2, 3 and 4 on DEIR page 131. The following additional measure has been added to measures proposed as part of the project at page 131:

"- The project is designed to accommodate from four to 11 retail uses at street level. The project sponsor would give preferential consideration to small business retail applicants in order to maximize the number of street-level retail uses."

See also Topics 15 and 16.

34. MITIGATION, HOUSING

COMMENT

Sue Hestor: "Employment, housing, and fiscal factors on Page 131. Where is their provision for housing? Where are they dealing with housing?... This is not actually producing the housing that their project demands and that I don't think that you can approve the project without."

Commissioner Nakashima: "Under Page 131 B. Employment Housing and Fiscal Factors there do not seem to be any measures that answer the issue of housing..."

Commissioner Bierman: "The housing goes without saying. The housing concerns I think are just massive."

RESPONSE

Employment, housing and fiscal mitigation measures appear on DEIR page 131. The following additional measures are added as measures under consideration at page 131:

"- Reduce impacts upon local and regional housing markets by contributing to a Housing Development Fund or similar program, should an appropriate funding mechanism be required by the City.

"- In order to help alleviate the housing demand attributable to the project, the project sponsor could apply good faith efforts to build, or cause to be built, new housing units in the San Francisco Bay Area and/or rehabilitate, or cause to be rehabilitated, existing substandard housing units in the San Francisco Bay Area; the total number of such new and/or rehabilitated units to be determined in cooperation with the Department of City Planning.

"- In cooperation with the Department of City Planning or other appropriate agency of City government, project sponsor could participate in coordinating formation of a panel of lenders, developers, architects, builders and representatives of relevant interest groups and agencies to explore and develop approaches to the alleviation of local and regional housing shortages. The efforts of the panel could be directed toward preparation of a study addressing contemporary and foreseeable housing issues and their resolution. Particular attention could be directed toward the appropriate role, if any, of Downtown property owners, tenants and developers in alleviating identified shortages. The study could be prepared, published and presented in an appropriate public forum and in a timely manner."

35. MITIGATION, TRANSIT AND TRAFFIC

COMMENT

Howard L. Goode: "BART staff strongly supports the on-site sale of BART tickets and other transit passes.

"In addition, we support all efforts to implement flex-time and variable hours programs for employees. The flex-time variable hours approach helps to maximize both rush hour transit capacity and the return on the public investment in transit.

"If at all possible for the developer, BART would be interested in an improved passenger link between the proposed building and the Montgomery street BART station."

RESPONSE

Transit mitigation measures, including on-site sale of BART tickets and flextime programs for employees, appear on DEIR pages 132 and 133.

The following has been added as a rejected mitigation measure at DEIR page 135:

"- Project sponsor could provide a subsurface pedestrian connection between the project and the Montgomery Street transit station. This measure has been rejected as economically costly and physically difficult due to intervening underground utilities and subsurface structures."

In response to Ms. Hestor's concerns that construction traffic from both the Crocker project and the proposed project would use the same access routes (see Topic 28), the following mitigation measure proposed as part of the project is added at DEIR page 132:

"- Should construction vehicles from the proposed project exacerbate traffic conditions on any haul routes shared by construction traffic from the neighboring Crocker National Bank project, the project sponsor would reroute project traffic, to the extent feasible, in consultation with the Department of Public Works."

36. MITIGATION, NOISE AND VIBRATION

COMMENTS

John Jerome: "I have a restaurant located at 315 Bush Street on the corner of Trinity Street. The only problem that I see with the new building above in relation to my business is the noise pollution caused by the pylons driven into the ground. This can cause loss of business for me. If you could in some way arrange to have the pylons start after 6 o'clock in the evening, I would have no objections."

Howard Bromberg: "ICT has offices along the back side of the proposed new construction on Trinity. Our work is of a technical and complex nature requiring a great deal of concentration. Having a major construction project so close is not very desirable under any conditions and anything that can be done to eliminate noise would be very welcome.

"I would, therefore, request that as much of the noisy work, such as pile driving, be accomplished during the evening, week-end and holiday times. In so doing, you would tend to minimize the adverse effect this project will have on the immediate neighbors."

Susan Hogan: "We would like to request that pile driving NOT be done during normal business hours at the 101 Montgomery Street site."

RESPONSE

As indicated on DEIR pages 114, 136 and 142, the project would not require pile driving. The foundation system would consist of a combination of continuous beam footings and drilled piers.

Construction noise impacts are addressed on DEIR pages 114 and 115; construction noise mitigation measures appear on page 136.

37. DISTRIBUTION LIST

COMMENT

Jonathan Malone: "On page 164, Distribution List, please add Jonathan H. Malone, Secretary to the list of Landmarks Board members receiving the E.I.R. Also, Mrs. Anne Sabiniano's name ends with an 'o', not an 'a'."

RESPONSE

The requested changes have been made at DEIR page 164.

38. TEXT CHANGES INITIATED BY STAFF OF DEPARTMENT OF CITY PLANNING

LANDSCAPING FOR TRINITY STREET LOADING AREA

The following sentence has been added to paragraph 2, EIR page 11 (see Response 3, page 11, above):

> "Plant materials which are being considered for landscaping the Trinity St. loading area include: hypericum aruim, raphioleptis orata, clavia minialta, sarcococca rusci, brunfelsia calysina, pittosporum tobira and ficus pumila. These plants require little sunlight."

The following label has been added to the project site area west of Trinity Street on Figure 7, EIR page 17:

> "Existing 3-story Building (to be demolished)"

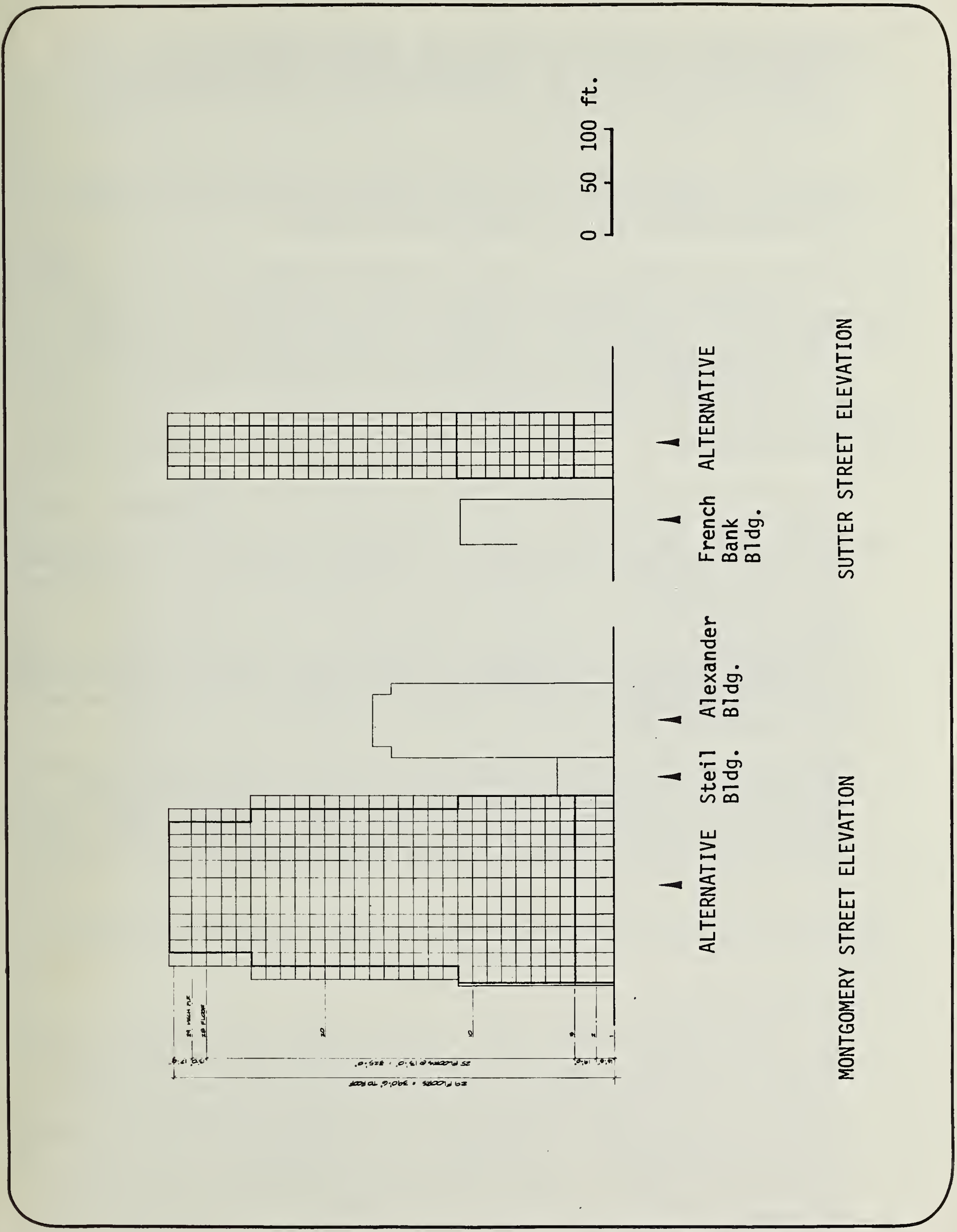
ALTERNATIVES

One subalternative to Alternative 2 has been added to the DEIR at page 148:

> "SUBALTERNATIVE 2A:
>
> "This alternative would retain the Steil Building facade; the California Pacific Building at Sutter and Montgomery Sts. would be demolished as well as the other three buildings on the site. The office tower would include the corner location at Montgomery and Sutter Sts. The tower would be designed with two setbacks on the Sutter St. elevation, one at the eleventh floor and one at the 25th floor (see Figure 26A). The building would be 28 stories tall and about 273,000 sq. ft.
>
> "This alternative design is proposed to provide a facade which would maintain the scale of the structures on Sutter St. between Montgomery and Kearny Sts., an architecturally important grouping including the Hallidie Building which is rated "A" in the Heritage Survey.
>
> "This alternative addresses one urban design feature, the scale of the structures along Sutter St. The style and historic quality of the California Pacific building, the corner point of this block of structures, would not be preserved with this alternative. The building would have approximately the same number of square feet as other high rise alternatives and other than design would have the same impacts as the proposed project."

Two subalternatives to Alternative 4 are addressed in Appendix R-1. The following discussion of these subalternatives has been added to the DEIR at page 154:

> "SUBALTERNATIVE 4A
>
> "This subalternative would be similar to Alternative 4, except that the California Pacific Building would be rebuilt and refurbished as an independent building with a new structural frame, new elevators, stairs,



SOURCE: William Schuppel & Associates

● FIGURE 26A: ALTERNATIVE 2A ELEVATIONS

smoke-proof enclosures, and other life safety features. This subalternative would retain all eleven floors of the California Pacific Building, removing only the existing mezzanine. The subalternative would reduce the height and floor area of the proposed tower by three floors, to comply with FAR requirements.

"As total on-site floor areas and uses under this subalternative would be similar to those of both Alternative 4 and the proposed project, most employment-related impacts would also be similar.

"The project sponsor has rejected this subalternative because, according to the sponsor's estimates, it would result in first-costs that would be about $638,000 greater than those of the proposed project, and annual revenues that would be $1.1 million less than those of the proposed project (see Appendix R-1, page 239). Heritage estimates that renovation of the California Pacific Building would not reduce revenues (see Appendix R-2, page 249).

"SUBALTERNATIVE 4B

"This subalternative would be similar to Subalternative 4A, except occupancy of the California Pacific Building would be permanently abandoned and the building would not be rebuilt or reinforced except for the required parapet strengthening. The subalternative would reduce the height and floor area of the proposed project by one floor, to comply with FAR requirements.

"The urban design and employment-related impacts of this alternative would be similar to those of Alternative 4, except that the lack of reinforcing in the California Pacific Building would continue to represent a seismic hazard to passersby.

"The project sponsor has rejected this subalternative because, according to the sponsor's estimates (see Appendix R-1, page 239), the initial reduction in first costs of $1.05 million relative to the proposed project would be more than offset in the second and subsequent years of project operation by annual revenues that would be about $744,000 less than those of the proposed project."

The following discussion of Subalternative 4C has been added to the EIR at page 154a:

"SUBALTERNATIVE 4C

"This subalternative would retain the three-story Domino Club Building on Trinity St. for the present. The office building proposed for Montgomery Street could be any of the tower alternatives or could be the proposed project. The allowable floor area for a building on the Domino Club site is 57,750 sq. ft. at the 1981 FAR of 14:1. Up to one half of this square footage is proposed and is permitted to be transferred to the project site across Trinity Street. The remaining one half would permit a seven-story building or a total of 28,875 sq. ft. on the Domino Club site, exclusive of bonuses.

"When or if the project sponsor decided to build on the Domino Club site, the existing structure would be demolished at that time. The Domino Club could relocate, negotiate for space in the new building, or go out of business.

"The buildings adjacent to the Domino Club Building to the north on Trinity St. are three-to-four stories in height. Buildings to the south, facing Sutter St. are over ten stories tall. A seven-story building on the Trinity St. site would not block views from the three adjacent buildings.

"Trinity St. is an alleyway that serves primarily as a pedestrian passageway. Eliminating the proposed service parking and loading area and retaining the existing Domino Club Building could reduce service vehicle traffic, congestion and vehicle-pedestrian conflicts on Trinity St. Construction of a seven-story building on the site at some time in the future would increase pedestrian and vehicular traffic on Trinity Street; any increases on surrounding streets would not be measurable over the existing situation."

MITIGATION MEASURES

The following has been added to measures under consideration on DEIR page 132:

"- Eliminate the proposed service parking and loading area on Trinity St. (Lot 26) and retain the existing Domino Club Building. This measure could reduce service vehicle traffic, congestion and vehicle-pedestrian conflicts on Trinity St., and would ostensibly require service vehicles to use proposed parking and loading facilities in the project basement. These proposed facilities and the access ramp from Bush St. meet Planning Code requirements (two loading spaces, one 10 ft. by 25 ft., one 10 ft. by 35 ft., 14-ft. clearance), but would be less convenient for drivers to use than would Trinity St. As a result, some drivers of service vehicles would probably continue to use Trinity St. even if the presently proposed surface loading area were not built.

APPENDICES

Add the following to DEIR page 146, paragraph 2:

"...(see Appendix F-1)."

Add the following appendix at DEIR page 223:

"APPENDIX F-1: FLOOR AREA CALCULATIONS FOR ALTERNATIVE 2

"Basic Allowable Floor Area:

"Lot Size: 60.1354 x 207 = 12,448.028 x 14 =		174,272.39 S.F.
"Adjacent Lot: 60 x 68.75 x 14 = 57.750 / 2 =		28,875 S.F.
Basic Allowable Building Area		203,147.39 S.F.
"BONUSES		
1. Rapid Transit	-0-	
2. BART Access 750 - 85 = 665 x 50 =	17,427	
3. Parking Access	-0-	
4. Multiple Building Access	10,000	
5. Widened Sidewalk	18,768	
6. Shortened Walking Distance 200 x 40	8,000	
7. Plaza	-0-	
8. Side Setback	12,448	
9. Low Coverage	-0-	
10. Observation Deck	10,000	
	76,643	76,643
Total F.A.R. Allowable		279,790.39 S.F.
"BUILDING		
"Ground Floor	6,497	
"2nd Floor - 34 = 7175 x 33 =	236,775	
	243,272	
Observation	-1,300	
Total Building	241,972	241,972
Existing Cal-Pacific Building	20,435	
Existing Steil Building	7,370	
	27,805	27,805
Total Alternative		269,777 S.F.

Add the following to DEIR at page 148, Subalternative 2A, paragraph 1:

"...(see Appendix F-2)."

Add the following appendix at DEIR page 223:

"APPENDIX F-2: FLOOR AREA CALCULATIONS FOR ALTERNATIVE 2A

"Basic Allowable Floor Area:

"Lot Size: 60.1354 x 207 = 12,448.028 x 14 =		174,272.39 S.F.
"Adjacent Lot: 60 x 68.75 x 14 = 57.750 / 2 =		28,875 S.F.
Basic Allowable Building Area		203,147.39 S.F.
"BONUSES		
1. Rapid Transit	-0-	
2. BART Access 750 - 85 = 665 x 50 =	17,427	
3. Parking Access	-0-	
4. Multiple Building Access	10,000	
5. Widened Sidewalk	18,768	
6. Shortened Walking Distance 200 x 40	8,000	
7. Plaza	-0-	
8. Side Setback 34.5 x 60.1354 = 2074 x 6	12,448	
9. Low Coverage	-0-	
10. Observation Deck	10,000	
	76,643	76,643
Total F.A.R. Allowable		279,790.39 S.F.
"BUILDING		
"Ground Floor (including Steil Building)	8,508.5	
"2nd Floor (including Steil Building)	10,778	
3 - 10 = 10,335.55 x 8 =	82,684	
11	10,317.55	
12 - 24 = 10,091.5 x 13 =	131,189.5	
25	8,512	
26 - 28 = 8,651.5 x 3 =	25,954.5	
	277,944.05	
Observation	-1,383	
Total Building	276,561.05	

Add the following to DEIR page 149, paragraph 1:

"...(see Appendix F-3)."

Add the following appendix at DEIR page 223:

"APPENDIX F-3: FLOOR AREA CALCULATIONS FOR ALTERNATIVE 3

"Basic Allowable Floor Area:

"Lot Size: 60.1354 x 207 = 12,448.028 x 14 =		174,272.39 S.F.
"Adjacent Lot: 60 x 68.75 x 14 = 57.750 / 2 =		28,875 S.F.
Basic Allowable Building Area		203,147.39 S.F.
"BONUSES		
1. Rapid Transit	-0-	
2. BART Access 750 - 85 = 665 x 50 =	17,427	
3. Parking Access	-0-	
4. Multiple Building Access	10,000	
5. Widened Sidewalk 34,343 (15% max)	26,140	
6. Shortened Walking Distance 200 x 40	8,000	
7. Plaza	-0-	
8. Side Setback 37 x 60.1354 = 2225 x 6	13,350	
9. Low Coverage	-0-	
10. Observation Deck	10,000	
	84,917	84,917
Total F.A.R. Allowable		288,064.39 S.F.
"BUILDING		
"Ground Floor	8,508	
"2nd Floor = 2 - 24 = 10,200 x 23 =	234,600	
25	9,480	
26	8,760	
27	8,040	
28 - 29	14,640	
	284,028	
Observation	-1,300	
Total Building	282,728	

Add the following to DEIR page 151, paragraph 2:

"...(see Appendix F-4)."

Add the following appendix at DEIR page 223:

"APPENDIX F-4: FLOOR AREA CALCULATIONS FOR ALTERNATIVE 4

"Basic Allowable Floor Area:

"Lot Size: 60.1354 x 207 = 12,448.028 x 14 =		174,272.39 S.F.
"Adjacent Lot: 60 x 68.75 x 14 = 57.750 / 2 =		28,875 S.F.
Basic Allowable Building Area		203,147.39 S.F.
"BONUSES		
1. Rapid Transit	-0-	
2. BART Access 750 - 85 = 665 x 50 =	17,427	
3. Parking Access	-0-	
4. Multiple Building Access	10,000	
5. Widened Sidewalk	25,272	
6. Shortened Walking Distance 250 x 40	10,000	
7. Plaza	-0-	
8. Side Setback	-0-	
9. Low Coverage	-0-	
10. Observation Deck	10,000	
	72,699	72,699.00 S.F.
Total F.A.R. Allowable		275,846.39 S.F.
"BUILDING		
"Ground Floor	7,532	
"2nd Floor	10,159	
3 - 10 = (10,265 x 8) =	82,120	
11 - 26 = (10,241 x 16) =	163,856	
Retained Cal-Pacific Floor Area 2nd Floor	760	
Floors 3,5,7,9 = (1,874 x 4) =	7,496	
	271,923	
Observation	- 650	
Total Building	271,273	

Add the following to DEIR page 154, Subalternative 4A, paragraph 1:

"...(see Appendix F-5)."

Add the following appendix at DEIR page 223:

"APPENDIX F-5: FLOOR AREA CALCULATIONS FOR ALTERNATIVE 4A

"Basic Allowable Floor Area:

"Lot Size: 60.1354 x 207 = 12,448.028 x 14 =		174,272.39 S.F.
"Adjacent Lot: 60 x 68.75 x 14 = 57.750 / 2 =		28,875 S.F.
Basic Allowable Building Area		203,147.39 S.F.
"BONUSES		
1. Rapid Transit	-0-	
2. BART Access 750 - 85 = 665 x 50 =	17,427	
3. Parking Access	-0-	
4. Multiple Building Access	10,000	
5. Widened Sidewalk	13,260	
6. Shortened Walking Distance 250 x 40	10,000	
7. Plaza	-0-	
8. Side Setback	-0-	
9. Low Coverage	-0-	
10. Observation Deck	10,000	
	60,687	60,687
Total F.A.R. Allowable		263,834.39 S.F.
"BUILDING		
"Ground Floor	7,990	
"2nd Floor	10,159	
3 - 11 = (10,065 x 9) =	90,585	
12 - 24 = (10,011 x 12) =	130,143	
Refurbished Cal-Pacific Ground Floor	1,842	
2 - 11 = (1,874 x 10) =	18,740	
	259,459	
Observation	- 1,300	
Total Building	258,159	

Add the following to DEIR page 154, Subalternative 4B, paragraph 1:

"...(see Appendix F-6)."

Add the following appendix at DEIR page 223:

"APPENDIX F-6: FLOOR AREA CALCULATIONS FOR ALTERNATIVE 4B

"Basic Allowable Floor Area:

"Lot Size: 60.1354 x 207 = 12,448.028 x 14 =		174,272.39 S.F.
"Adjacent Lot: 60 x 68.75 x 14 = 57.750 / 2 =		28,875 S.F.
Basic Allowable Building Area		203,147.29 S.F.
"BONUSES		
1. Rapid Transit	-0-	
2. BART Access 750 - 85 = 665 x 50 =	17,427	
3. Parking Access	-0-	
4. Multiple Building Access	10,000	
5. Widened Sidewalk	13,260	
6. Shortened Walking Distance 250 x 40	10,000	
7. Plaza	-0-	
8. Side Setback	-0-	
9. Low Coverage	-0-	
10. Observation Deck	10,000	
	60,687	60,687
Total F.A.R. Allowable		263,834.39 S.F.
"BUILDING		
"Ground Floor	7,332	
"2nd Floor	10,159	
3 - 10 = (10,265 x 8) =	82,120	
11 - 26 = (10,241 x 16) =	163,856	
	263,467	
Observation	- 1,300	
Total Building	262,167	

CAHILL CONSTRUCTION CO.
CONTRACTING ENGINEERS
425 CALIFORNIA STREET
SAN FRANCISCO 94104

TELEPHONE
986-0600

March 24, 1981

H E R I T A G E
2007 Franklin
San Francisco, CA 94109

Re: 101 Montgomery Bldg.

Dear Ladies and Gentlemen:

As a result of the Heritage testimony at the Planning Commission on February 19, 1981, concerning the subject project, we have made a further analysis of the project with a view to preserving the California-Pacific Building.

In the Draft EIR there is an Alternate 4 on Pages 151 thru 154 which places the proposed 101 Montgomery Building directly between the California-Pacific Building and the Alexander Building, with no side set-backs. We feel that aesthetically and economically a major tower such as 101 Montgomery should have side set-backs and corner location - neither of which can be practically achieved if the California-Pacific Building is preserved. Despite these factors we immediately proceeded to seriously investigate the feasibility of retaining the California-Pacific Building. We retained Mr. Robert Gefken to make a structural investigation of the building. A copy of his report is attached hereto. We were shocked to discover the weak structural condition of the building. Therefore, we could not, and our insurance carriers would not permit any tenancy unless a completely new frame or major reinforcement of the present frame were installed. This could easily involve a considerable foundation problem.

In light of this new development, we have studied two new Alternates which would also preserve the California-Pacific Building; viz., Alternates 4A and 4B. The three Alternates are described below with the economic impact comparison to the basic 101 Montgomery Building:

Alternate 4: As described on Pages 151 thru 154 of the Draft EIR.

Under this Alternate it would be necessary to completely gut the interior frame of the California-Pacific Building and extend the main tower structural frame into the old building shell. Because of the different floor levels of the two buildings, we are only able to have five floors above the ground instead of the present eleven floors in the California-Pacific Building. The five floors would be connected to the main floors of the tower by stairs or ramps. The retention of the California-Pacific Building requires the elimination of the 27th and 28th floors and a part of the first and second floors of the tower to meet the FAR requirements. The ANNUAL loss of income for this Alternate, as opposed to our basic design, would be $1,034,374. (See Budget attached).

Alternate 4A:

This Alternate is the same as Alternate 4 except that the California-Pacific Building would be completely re-built and refurbished as an independent building with a completely new structural frame, proper stairs, new elevators, full-life safety and a completely finished eleven story building (removing only the small existing mezzanine). The only major item retained would be the exterior skin of the building. The retention of California-Pacific Building in this Alternate requires the elimination of the 26th, 27th and 28th floors and a part of the first and second floors of the tower to meet the FAR requirements. The ANNUAL loss of income for this Alternate, as opposed to our basic design, would be $1,104,070. (See Budget attached).

Alternate 4B:

Under this Alternate we would abandon any occupancy of the California-Pacific Building and merely do the required parapet strengthening work. Since there would be no occupancy of the California-Pacific Building in this Alternate, it would only require the elimination of the 28th floor and a part of the first and second floors of the tower. The ANNUAL loss of income for this Alternate, as opposed to our basic design, would be $743,942.

H E R I T A G E

March 24, 1981
Page 3

To conclude we feel that preservation of the California-Pacific Building should be rejected for the following reasons:

A. Retention of the California-Pacific Building would block views of the French Bank Building.

B. The new tower would be out of scale and style with the Alexander and California-Pacific Buildings, which would flank the tower on each end of the new tower. On the other hand, if the entire Montgomery block were occupied by just the new tower and the Alexander Building, separated by more than 20', the two buildings would compliment each other.

C. The California-Pacific Building is a structurally unsafe building, not only to occupants, but to pedestrians on neighboring sidewalks.

Since even to keep the California-Pacific Building in its existing unoccupied state would result in a loss to us each year of more than $700,000, plus a hazard to pedestrians, we regret that we cannot afford to retain this old building. However, we would be most willing to retain certain ornamental friezes which could be incorporated in the new tower.

We would be happy to meet with you at any time to discuss our project.

Sincerely yours,

CAHILL CONSTRUCTION CO.

R. Cahill

Richard F. Cahill

RFC:dp
Encls.

cc: Messrs. Dean Macris
C. David Robinson

ROBERT S. GEFKEN
STRUCTURAL ENGINEER
576 SACRAMENTO STREET
SAN FRANCISCO, CALIF. 94111

TELEPHONE (415) 392-7911

Mr. Richard Cahill
425 California St.
San Francisco, Ca. 94104

March 13, 1981

Job No. 81036

Re: A type 1 building at 105 Montgomery St.

Dear Dick:

I have completed my investigation of the 105 Montgomery St. building as you requested, and the results of that investigation follows. I am quite familar with the various components of this building, as I have been involved with the parapet strengthening, the handicap ramp construction, and an investigation of the tenth floor loading for the Israel Consulate.

The building was designed by Reid Brothers, Architects, in 1910, and consists of a steel frame supporting reinforced concrete slabs at the floors and roof. The beams, girders, and interior columns are fireproofed with concrete; whereas, the exterior steel columns are enclosed by unreinforced brick masonry. The blind wall on the north side of the building is reinforced concrete; however, the three other walls on Trinty, Sutter, and Montgomery treet are unreinforced brick.

Although this building was constructed four years (1910) after the 1906 earthquake, it is apparent the lessons taught by this major quake were not incorporated in the structural design of this building. At my request, the beam and column connections at the second floor were exposed in order to make an evaluation of the lateral connection. The only moment connections I found were at the perimeter columns, and the connections consisted of an angle 5 x 3½ x ½ riveted to the top and bottom flange of the beam at the 5" leg while the 3½" leg was riveted to the flange of the column. The web of the beam was connected to the column with one angle which was also riveted.

The only floor that had any lateral capacity was the basement. There, the perimeter beams were connected to the columns with deep gussets that could develop some lateral resistance. The interior beams and columns in the basement were similar to the second floor, and did not contain any moment resistant connections.

In summary, I find this building has very little lateral capacity in view of the weak beam to column connection. The in-fill walls around the perimeter are unreinforced brick, and they would be an extreme hazard if they fell during a large quake. Therefore, the building is very weak laterally, and would require a major bracing system in order to make the building safe for future quakes. Of course, this would very expensive.

Sincerely yours,

Robert S. Gefken

Robert S. Gefken

111 Sutter Street | Hallidie Building | French Bank Building | PROJECT | Equitable Building (shaded) | Alexander Building (behind)

SOURCE: William Schuppel & Associates

FIGURE 3: VIEW OF PROJECT FROM SUTTER AND MONTGOMERY STREETS (REVISED)

SOURCE: William Schuppel & Associates

FIGURE 28: VIEW OF ALTERNATIVE 4 FROM SUTTER AND MONTGOMERY STREETS (REVISED)

101 MONTGOMERY

ALTERNATE 4B

REDUCED CAPITAL COST

OMIT CONSTRUCTION OF MAIN TOWER 12400 SF @ 63.00 ⟨781,200⟩

DESIGN, INTEREST CHARGES, MISC SOFT COSTS 22½% ⟨175,770⟩

CONTINGENCY 10% ± ⟨96,030⟩

NET REDUCED CAPITAL COST ⟨1,053,000⟩

REDUCED ANNUAL INCOME ENTIRE PROJECT

OMIT INCOME MAIN TOWER

1ST FLR	⟨900 SF⟩	@ 38.00	⟨19000⟩
2ND	⟨900 SF⟩	@ 20.00	⟨16000⟩
3RD - 27TH FLRS 25×60 =	⟨1500 SF⟩	@ 18.00	⟨27000⟩
28TH FLR	⟨3802 SF⟩	@ 32.00	⟨121664⟩

NET INCOME LOSS FOR 7102 SF LESS RENTAL SPACE ⟨183664⟩

BLDG LOSS IDENTITY NOT ON CORNER 10% PROX LOSS OF RENT 253,868 SF @ 2.00 ⟨507,736⟩

LOSS RENT NO WINDOWS @ ENDS (SEE ALT 4) ⟨199,962⟩

SAVING SERVICE LOAN REDUCED CAPITAL COST 1,053,000 @ 14% 147,420

NET ANNUAL LOSS INCOME VS BASIC PROJECT ⟨743,942⟩

GROSS AREA FOR CONSTRUCTION • ALT 4

105 MONTGOMERY ANNEX

BASEMENT	72-1 5/8 X 34-4 1/2 60-1 7/8 X 12-0	2479 721	3200
$1^{ST}, 2^{ND}, 3^{RD}, 5^{TH}, 6^{TH}, 8^{TH}$	6 X 60-1 5/8 X 34-4 1/2		12403
			15603

101 MONTGOMERY TOWER

BASEMENT	72-1 5/8 X 170-0		12,263
$1^{ST}-26^{TH}$	60-1 5/8 X 170	10223	
BAYS	16 X 3.5 SF	56	
✓	8 X 4.0 SF	32	
		26X 10311	268,086
PENT	60-1 5/8 X 170		10,223
			290572

GROSS AREA FOR CONSTRUCTION • ALT 4A

105 MONTGOMERY BLDG

BASEMENT (SAME AS ALT 4)		3200
1^{ST} - 11^{TH} FLRS	11 X 60-1 5/8 X 34-4 1/2	22739
PENT		400
		26339

101 MONTGOMERY TOWER

SAME AS ALT 4	290,572
LESS 26^{TH} FLR	⟨10,311⟩
	280261

GROSS AREA FOR CONSTRUCTION • ALT 4B

105 MONTGOMERY BLDG — ⊖

101 MONTGOMERY TOWER

SAME AS ALT. 4	290,572
PLUS 27^{TH} FLOOR	10,311
	300,883

APPENDIX R-2: MEMORANDUM FROM THE FOUNDATION FOR SAN FRANCISCO'S ARCHITECTURAL HERITAGE TO DEAN MACRIS, DIRECTOR OF PLANNING, APRIL 22, 1981

HERITAGE

THE FOUNDATION FOR SAN FRANCISCO'S ARCHITECTURAL HERITAGE

April 22, 1981

MEMORANDUM

TO: Dean Macris, Director of Planning

FROM: Heritage, through Linda Jo Fitz, Acting Executive Director

RE: Materials for inclusion in the Environmental Review of the 101 Montgomery Street Project

The project as proposed has significant negative environmental effects, including those referred to in Attachment A, but a similar project could be built that retains the California Pacific Building at 105 Montgomery, reduces the negative impacts and provides a financial return that exceeds the return which the sponsor considers "reasonable;" that is, exceeds "one percent more than the (prevailing) prime interest rate."

The economic viability of a modified project that either includes or entirely excludes the California Pacific Building is analyzed. The analyses reveal the high profitability of building on Montgomery Street and on all or part of this site in particular.

In all cases, the analyses use the Cahill Construction Company's full construction costs (including renovation and seismic work) and use net rental income based on conservative market estimates for 1983 occupancy.

Attachment B provides a general analysis of rental income projections and shows why the sponsor's projections are considered to be unreasonably low. The sponsor's low rents downwardly distort the sponsor's profit projections.

Attachment C shows how profitable the renovated California Pacific Building would be, even when considered alone and even when using the costs estimated by Cahill. A return of 25% per year is shown which is considerably more than the sponsor's "reasonable" return figure of prime plus 1%.

Attachment D points out that retaining the California Pacific Building could actually have positive economic impact on the project to the extent that the sale of the building would provide. Attachment D also discusses how the market place does not support the sponsor's claims regarding reduction of income from design

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Memo to Dean Macris from Heritage
April 22, 1981
Page 2

changes required by the retention of the California Pacific Building. The discussion outlines why side windows and corner identity are not considered significant when projecting rent for this prime Montgomery Street location.

Attachment E demonstrates why the 101 Montgomery project appears to be highly profitable whether or not it includes the California Pacific Building. It lays out the reasoning which suggests a 40% return on equity. Again, this analysis uses Cahill's costs per square foot and suggests that the project is feasible regardless of the inclusion of the California Pacific Building.

It should be noted that the sponsor makes conflicting statements about economic return. On the one hand the sponsor states that a reasonable return is 1% over prime; on the other hand there are several references to alternatives being dismissed because they "fail to optimize return on investment." Why demolish the California Pacific Building in order to optimize the sponsor's return when it could be renovated and still provide more than the "reasonable" return that the sponsor seeks?

cc: Peter Cahill

HERITAGE

THE FOUNDATION FOR SAN FRANCISCO'S ARCHITECTURAL HERITAGE

Significant Negative Environmental Effects

1. Loss of 105 Montgomery, the California Pacific Building, an individually significant building designed by a major post-Fire architect.

2. Loss of the building which provides the visual anchor (the California Pacific Building) for the historically significant Sutter Street row.

3. Diminution, bordering on loss, of the strength of the vista westward which is currently one of sustained architectural integrity.

4. Extension of the "canyon effect" to the corner of Sutter and Montgomery.

5. Replacement of the existing humanly-scaled corner environment with the huge scale corner of an enormous building.

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HERITAGE

THE FOUNDATION FOR SAN FRANCISCO'S ARCHITECTURAL HERITAGE

Cahill Rental Projections

101 Montgomery Project

Rental projections furnished by Cahill appear to be unreasonably low in light of current and projected market conditions.

Regardless of whether or not the building scheme is altered to preserve the California Pacific Building the project will enjoy the following:

a) A Montgomery Street address
b) Historical central financial district location
c) Lack of competition in the immediate area
d) Proximity to shops, hotels, corporate headquarters, restaurants, BART, MUNI, etc.
e) A small floor, center core design which will appeal to professional tenants who are capable of paying premium rents and who have been under served by the market.

Cahill's net (unserviced) rental figures are in the area of $19.00/sq. ft. annually (averaged) or $1.60/sq. ft. monthly; whether these are today's rentals or projected rentals, they are low in either instance, given project location and general configuration.

Current and projected rentals actually being quoted and/or negotiated currently in the market are as follows - many of these properties enjoy none of the location and interior design advantages of the proposed building. The rentals, where quoted as serviced, have been reduced to net by deducting $6.00 per year.

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Property	Address	Sq. Ft. Available	1981 net asking rent
Roos Atkins	799 Market Street	142,000	$17.00 (leased)
Audiffred Building	Embarcadero/Mission	24,000	29.00 (partially leased)
666 Howard	same	33,000	20.00 (partially leased)
130 Sutter	same	22,500	16.50 + CPI (sublease)
101 California	same	200,000 +-	30.00
Crocker Bank	7 Montgomery Street	200,000 +-	27.50
Equitable	120 Montgomery Street	3,437	16.50
Grant Geary Center	same	50,000 +-	19.00
Embarcadero Center	same	Various	28.00
Solar Building	530 Bush Street	Various	24.00
505 Sansome	same	2,250	26.00
Pacific Gateway	Mission & Beale	480,000	19.00 (leased)
160 Spear	same	300,000	24.00 +-
Yerba Buena West	Howard and 5th St.	150,000 +-	17.00

The above is to give an over-view of quoted rentals, some current, some projected, for all types and locations of projects. Many of these properties enjoy few advantages over Montgomery Street, most substantially less; it would appear that a 1983 rental of $30.00 per square foot would be readily achievable; the $19.00 projected rent is below the current market in existing buildings.

ATTACHMENT C

HERITAGE

THE FOUNDATION FOR SAN FRANCISCO'S ARCHITECTURAL HERITAGE

Pro Forma Analysis
California Pacific Building
105 Montgomery Street

Lot Size: 60' x 34.37' = 2,062 square feet

Improvements: Eleven story plus basement steel frame, concrete and brick building built in 1910.
Reported gross square feet = 26,339
Net rentable square feet = 18,350
(10 floors of 1,700 square feet plus ground floor of 1,350 square feet)

Renovation Costs: Per Cahill Construction - gross building area.

Structural	$1,500,000.00	($57.00/sq.ft.)
Internal construction	1,053,560.00	(40.00/sq.ft.)
Soft costs @ 22 1/2% of above	574,551.00	
Contingency @ 10% of above	312,811.00	
TOTAL:	$3,440,922.00	

Cost per gross square foot = $130.64
Cost per net rentable square foot = $187.52
Round to $3,500,000.00
It is assumed the above costs will cover building standard tenant improvement, leasing commissions, etc.

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Pro Forma Rental (current market estimates) 1983 Occupancy

17,000 sq. ft. @ $30.00/sq. ft. net (average)		=	$510,000.00
1,350 sq. ft. @ $48.00/sq. ft. net		=	64,800.00
		=	$574,800.00
	Less 5% vacancy	=	28,740.00
			$546,060.00

Note: All rentals are net and assume a $7.00/sq. ft. cost to the tenant to cover all fixed and variable operating expenses.
Rentals are projected based on current market for comparable location, small floor benefit, etc.

Capitalized Income Stream: $546,060.00 capitalized @

7% =	$7,800,571.00
7 1/2% =	7,280,800.00
8% =	6,825,750.00
8 1/2% =	6,424,235.00

Assume potential sale upon lease up @ $7,000,000.00 or $381.50/ sq. ft. of rentable area. (7.8% capitalization). Net profit over renovation costs = $3,500,000.00.

Building Residual Value: Assuming a developer desires an internal rate of return of 25% per year the following scenario developes:

Year #1

Building Purchase Price:	$ 975,000.00
Renovation Costs (1/2):	1,750,000.00

Year #2

Renovation Costs (1/2):	$1,750,000.00
	$4,475,000.00

Year #3	
Net Rental Income:	$ 546,000.00
Sales Proceeds (net):	7,000,000.00
	$7,546,000.00

The developer can afford to pay $975,000.00 +- for the building - all cash and still achieve his goal. The rental achievement and capitalization rate are considered conservative.

Condominium Value: The property could also be converted into condominiums with the following resale scenario:

Ground Floor:	
1,350 sq. ft. @ $640.00/sq. ft. =	$ 864,000.00
Upper 10 Floors:	
1,700 sq. ft. each @ $400.00/sq. ft. =	$6,800,000.00
(average)	$7,664,000.00

Although there have not been many such marketing efforts to date, it would appear reasonable to assume that a business would be willing to pay at least the above prices to protect themselves from further rental escalations, ensure continuity of occupancy, benefit from appreciation, realize beneficial tax consequences, etc.

Based on pro forma rentals the following is the year #1 capitalized value of the rental income from a before tax tenant viewpoint.

$30.00/sq. ft. @ 7 1/2% = $400.00
$48.00/sq. ft. @ 7 1/2% = $640.00

HERITAGE

THE FOUNDATION FOR SAN FRANCISCO'S ARCHITECTURAL HERITAGE

Recent Sales Comparables

Two recent sales of buildings which are similar to the subject property can serve as comparable:

<u>155 Sansome Street</u>: Eleven story plus basement building with two special purpose floors, i.e., Stock Exchange Club.
Reported above grade rentable area: 60,850 sq.ft.
Reported Existing Net income: $284,000.00
Minimum bid price (3/18/81): $10,000,000.00
Capitalization rate: 2.84%
Cost per rentable square foot: $164.34

The reported winning bid price is rumored to have been in excess of $11,000,000.00. Sale price is confined at more than $10,000,000.00

<u>260 California Street</u>: Eleven story plus basement and penthouse building.
Reported rentable area: 41,860 square feet
1979 Reported net income: $182,000.00
Sales Price: $8,600,000.00
Capitalization rate: 2.12%
Cost per rentable square foot: $205.44

These comparables indicate that there are buyers who highly value bulidings needing rehabilitation.

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HERITAGE

THE FOUNDATION FOR SAN FRANCISCO'S ARCHITECTURAL HERITAGE

Economic Impact of California Pacific Building

The preservation of the California Pacific Building may have positive economic impact to the extent it can be sold 'as is' or renovated and sold at a later date. In either instance it should not be considered an economic albatross when viewed on its own merits.

The impact on the proposed project of the preservation of the California Pacific Building is two fold; loss of rentable area, and loss of income from a change in project design.

The loss of square footage is minimal and can be offset in part from the sale of the subject property.

Cahill's projected loss of income from lack of corner identity and window loss appears to be unreasonable, if not completely unsupported by market conditions. To reduce the already low rents by an across the board 10% cut because of lack of corner identity is an assumption that appears totally unwarranted.

The loss of windows, while not to be denied, would appear to have minimal impact. The building is a center core design and rectangular in shape with windows on both Montgomery and Trinity Place and a depth dimension of less than sixty feet, hence, no occupant would be less than thirty feet, maximum, from a window. This high ratio of window to floor area, even on floors with windows on only two sides, is more favorable than in most new building projects and much more favorable than in many older buildings.

The loss of rental for lack of a corner is a subjective opinion -

1) Many major buildings on corners are on alley corners, not main streets, such as Leidesdorff, Commercial, etc.

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2) Most buildings do not have their entry on the corner as it is usually developed for a retail tenant. The entry is usually mid-block.

3) The Russ Building, for example, while enjoying two corners has a mid-block entry, and many of its tenants have no corner orientation whatsoever.

4) Successful mid-block buildings include the Hartford Building, #1 Jackson Place, etc. which are two prestige projects.

5) DAON Corporation is reported to be preparing a mid-block development scheme for the Dollar properties which sale represented a new high in recognized land value.

6) The Bank of America Building has no Montgomery Street corner orientation whatsoever, and its main entrances are mid-block.

With the exception of some potential retail loss of income there should be no loss of rental from lack of a corner; major mid-block retailers include Bullock & Jones, Tiffany's, Gumps, etc.

In short, the rental loss from project redesign should be limited to lost square footage, less the potential sale value of the California Pacific Building; window and corner losses are not substantiated in market performance.

HERITAGE

THE FOUNDATION FOR SAN FRANCISCO'S ARCHITECTURAL HERITAGE

Potential Project Profit

Regardless of the size of the project at 101 Montgomery Street i.e., whether or not it includes the California Pacific Building, certain economic assumptions can be made which indicate a successful project in either case.

Cahill projected a per square foot cost of $63.00 for the new tower, and added a 22 1/2% design, interest and misc. soft cost load and a 10% contingency to project costs approaching $85.00 per gross square foot; adding 15% to the above converts gross area cost to net rentable cost of $97.75 per square foot. Assuming 261,000 square feet of rentable area against a $5,000,000.00 land value, total costs approach $118.00 per rentable square foot.

Cahill projects a 14% loan service constant on borrowed capital which they feel could be achieved.

Assuming the following -

1) Cahill contributes 25% equity or $29.50 per square foot.
2) Lender lends the balance ($88.50) at a service cost of 14% = $12.40/year.
3) Cahill desires a 25% return on their funds or $7.38/year.
4) Project net rents break even at $19.78/sq. ft. (2 + 3)
5) If project underperforms at $24.00 sq. ft. net average, return on equity investment is $24.00 minus $12.40 or a $11.60 return on $29.50, for a developers return on equity of 40%.

Hence, the project appears feasible on a cost per square foot basis regardless of the California Pacific Building.

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APPENDIX R-3: MEMORANDUM FROM THE FOUNDATION FOR SAN FRANCISCO'S ARCHITECTURAL HERITAGE TO LOU BLAZEJ DEPARTMENT OF CITY PLANNING, MAY 5, 1981.

HERITAGE

THE FOUNDATION FOR SAN FRANCISCO'S ARCHITECTURAL HERITAGE

May 5, 1981

MEMORANDUM

TO: Lou Blazej, Department of City Planning

FROM: Linda Jo Fitz, Heritage

RE: 105 Montgomery

Analysis of information provided by consultants George Langdon (AIA), Otto Avvakumovits (SE) and David Plant (contractor) regarding the structural and modernization work required to make 105 Montgomery meet seismic safety requirements and provide amenities to compete for top rents.

Agreement on Scope of Work

Langdon/Cahill discussion established that Langdon's scope of work matches Cahill's scope of work with the following exceptions:

-Langdon added new electrical service; Langdon substituted possibly unnecessary secondary bracing of masonry infill for Cahill's "gunniting" of masonry infill which had included the reinforcement of the foundation to support the additional load of the "gunniting."

-Langdon eliminated stair replacements and sprinkler system which are not required by code. A metal stair and a separate fire escape exist.

Elimination of the Need for "Gunniting"

Original construction drawing located by Mr. Avvakumovits at the end of April reveal that the building had much more lateral support than had been revealed by the Cahill engineering teams' visual inspections. It should be noted that this building is much better built than other buildings of the period and one could only know this by seeing the drawings.

Among other things, Mr. Avvakumovits found that the steel frame does in fact have stiffening gussets aimed at providing moment resistance to the joints. This new information supercedes Mr. Gefken's earlier (March 13) conclusions made before the drawings were located. The existing capacity to resist lateral loads can be strengthened through installing diagonal braces between beams and columns providing "K brace" systems on the E and W walls so code will be met. This method replaces the method known as "gunniting" which is expensive and so heavy that it would have required strengthening of the foundation.

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MEMO from LJF to LB
May 5, 1981
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COSTS:	Cahill consultants		Heritage consultant					
Structural	$1,500,000	($57 SF)	*$ 785,000	($30 SF)	to	* $ 920,000	($35 SF)
Internal	1,053,560	($40 SF)	**$1,075,000	($41 SF)	to	** $1,350,000	($51 SF)
	$2,553,560		$1,860,000	($71 SF)	to	$2,270,000	($86 SF)
		(rounded off)	$1,900,000		to	$2,300,000	

* Both ends of range include $110,000 - $170,000 for secondary bracing not ordinarily required by the Building Department but included pending Building Department review.

** Both ends of range include $75,000 - $100,000 for new electrical system not included by Cahill.

Implications of Lower Costs

(1) In reference to Attachment E in Heritage letter to Dean Macris (April 22), the lower costs estimated by Heritage consultants for the rehabilitation of the California Pacific Building make the project even more profitable.

Attachment E shows the project including the California Pacific Building at a net rentable cost of $97.75 per square foot. Cahill had estimated the California Pacific Building work at $97 per square foot. Heritage consultants show the California Pacific work at $71 to $86 per square foot including $4 - $6.50 per square foot for secondary bracing which is unlikely to be required given the condition of the building as shown in the original construction drawings. Thus the rehabilitation costs could be $67 to $79.50 per square foot.

Regardless of whether the Cahill high of $97 per square foot or the Heritage low of $67 per square foot is assumed for the California Pacific Building the project is highly profitable. The 40% return on equity projected from Cahill figures can be examined on referenced Attachment E.

(2) In relation to Cahill's handwritten figures for rehabilitation, the page labeled Alternate 4A attached to his letter to Heritage of March 24: Cahill shows that the retention and reuse of the California Pacific Building (Alternative 4A) costs $638,000 more than his proposed project. Heritage figures above total $693,560 to $283,560 <u>less</u> than Cahill's. Thus if the costs are actually at Heritage's lower estimate, the project incorporating Alternative 4A would cost $55,560 <u>less</u> than the proposed project.

Summary

What is most important to note is that this project can feasibly incorporate the rehabilitation of the California Pacific Building. Whether Heritage's lower costs or Cahill's higher costs are used for analysis, the project is profitable.

MEMO from LJF to LB
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The original construction drawings were brought to Cahill's attention at the end of April and certainly resulted in the sponsors' realization that the project is blessed with an historic building of good quality in an architecturally significant block.

APPENDIX R-4: MEMORANDUM FROM CAHILL CONSTRUCTION COMPANY TO DEAN MACRIS, DIRECTOR OF PLANNING, MAY 5, 1981

May 5, 1981

To: Mr. Dean Macris
Director of Planning

From: Cahill Construction Co., Inc.
by: Richard F. Cahill RFCahill

Re: Rebuttal to Heritage Memorandum on 101 Montgomery Street Project dated April 22, 1981

==

We feel that this memorandum should be distributed to all the Planning Commissioners, inasmuch as we were not aware that the Heritage Memo was to be included in the DEIR. The Paragraph headings below refer to the Heritage Memo Paragraphs:

Paragraph 1.

Attachment "A" lists alleged negative environmental effects, but does not list the following positive environmental effects:

A.) The 101 Montgomery basic project provides a Plaza at the south end of the new building which will open up better views of the French Bank Building, as well as providing open Plaza space for the public; or if Alternate 2A is accepted, the building facade of the Steil Building (Class "B" Heritage Building) will be preserved.

B.) Under all Alternates the Alexander Building would be preserved. It is not only a Class "B" Heritage Building, but has been an earthquake model building under the U.S. Coast and Geodetic Seismological Survey Team, and instruments have been periodically inspected for 50 years.

C.) Under our basic project a truly brilliant building design is opened up for public view rather than being squeezed between two existing buildings, as required by Alternate 4.

D.) Demolition of the California-Pacific Building will remove a dangerous and unattractive building from our city.

We disagree with Heritage's statement that a reasonable return could be attained if we retained the California-Pacific Building.

Attached are 3 renderings of the proposed Alternate 2A which we developed in concert with Planning Staff.

CAHILL CONSTRUCTION CO.

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Paragraph 4. Analysis of Rental Income Projections

We have examined the over-view of quoted rentals shown on Page 2 of Attachment "B" to Heritage's feasibility study and note that the majority of the rents listed are captioned "asking rents". Normally one could expect the actual rents to be at least 10% lower than the asking rents.

In addition, a developer must adjust downwards such rents by a factor for amortization of the tenant improvement package (Cahill's $19.00 rent provides no tenant improvement package), and also for a 5% Vacancy Factor. For comparison, we have selected the 101 California Building $30.00 average net rental as the highest in the over-view list. Since 101 California is a 45 story building, we have assumed the $30.00 average asking net rent is the rent asked for the 23rd floor (midway in height) of 101 California. Adjusting downward by 50 cents per square foot to the 15th floor (midway in height) of 101 Montgomery, we have an average net asking rent of $23.50 per sq. ft. Reducing this by $2.50 per square foot per year for the Tenant Improvement Package of 101 California Street, a 5% vacancy factor and a 10% reduction of lease rent below asking rent, we have an actual average effective rent for 101 California (if 101 California were also a 28 story building) of only $17.96 per square foot. Therefore, our assumed $19.00 average rent is actually higher than the highest rental quoted in Heritage's Attachment "B" after the proper adjustments have been made thereto.

Paragraph 5.

Attachment "C" shows a renovation cost of $3.5 million with which we agree; however, Attachment "C" also shows a net rental income of $546,000 per year for the completely renovated California-Pacific Building. Our actual net income for the year prior to eviction of tenants was approximately $58,000. As stated in Page 91 of the DEIR, our most optimistic estimate of annual income from a completely renovated building is $323,000. Since we have owned and operated the California-Pacific Building for 14 years, we feel we are more qualified than Heritage to estimate the projected income of the renovated building. Assuming that the land has no value, the return on the renovation cost is $323,000/$3,500,000 or 9¼%. Since it costs 14% to borrow, the renovation is not economically feasible. The recent sales comparables listed by Heritage, i.e., 150 Sansome and 260 California are monumental buildings which have "A" Heritage classification and are much superior to 105 Montgomery or to California-Pacific Building as landmark buildings. Also because of their size they have greater possibilities as headquarters buildings. However, applying a similar capitalization return of

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To: Mr. Dean Macris
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say 3% to California-Pacific Building, we would have a purchase price of $1,950,000 for the California-Pacific Building "as is". Adding to the renovation cost of $3,500,000 and using the most optimistic rental figure of $323,000, the return on investment for a purchaser would then be 5.9%. In conclusion we feel that 9¼% return on just the renovation cost is not a "reasonable" return, or if the building could be sold "as is" for $1,950,000, the return of 5.9% is also not "reasonable".

Paragraph 6.

We consider the California-Pacific Building an "economic albatross", as outlined in Para. 5. above, because in this day of 14-20% interest, a 5.9% or a 9.2% return is unfeasible. Heritage states that the loss of square footage in the proposed project is minimal, but we feel that an annual loss of $411,908 per Alternate 4 (Page 90 DEIR) or $630,636 for Alternate 4A (Page 91 DEIR) or $507,736 per Alternate 4B (Page 92 DEIR) is very substantial.

Heritage further suggests that there is no loss of income because of lack of corner identity, stating that there are many buildings which do not have a corner situation. In fact the Hartford Building is the only major office building in San Francisco not on a corner and it has the advantage of having Old St. Mary's Church, House and Courtyard adjacent to provide identity.

101 Montgomery project under Alternate 4 actually would lose two corners, lose the side separation from the Alexander Building, which would seriously affect its identity impact. Therefore, we in our experience feel 10% is a conservative rental loss expectancy. Heritage states that loss of windows would have "minimal" impact economically. In our projection of rents of the basic project, we assume four (4) corner offices (windows on two sides) 400 s.f. each, which would carry a premium of at least $6.00 per s.f. or 1/3 higher than non-corner offices. Under the proposed Alternate 4 we would lose 26 corner offices at 400 s.f. each x $6.00 per s.f., or $62,400 per year. Further, the interior 400 s.f. offices on the north and south would have no windows and, therefore, a reduced rental of $3.00 per s.f., which would amount to a reduced rental of $15,600. This total annual loss of $78,000, we feel, is quite substantial for loss of windows.

Paragraph 7.

The Heritage feasibility study of 101 Montgomery Street shown in their Attachment "C" contains three basic flaws:

A.) The land value is $15,500,000 rather than $5,000,000. Our land valuation is based on the recent sale of the Jerome property at $900 per s.f.

CAHILL CONSTRUCTION CO.

To: Mr. Dean Macris
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B.) Cahill will contribute the land as an equity at 39.3% (land $16,500,000, Building $25,000,000) rather than 25% equity.

C.) The expected return by Cahill will be 15% rather than 25%, and then only if the net rental exceeds the budgeted rental by $6.00 per s.f.

See calculations below in the same form as Heritage:

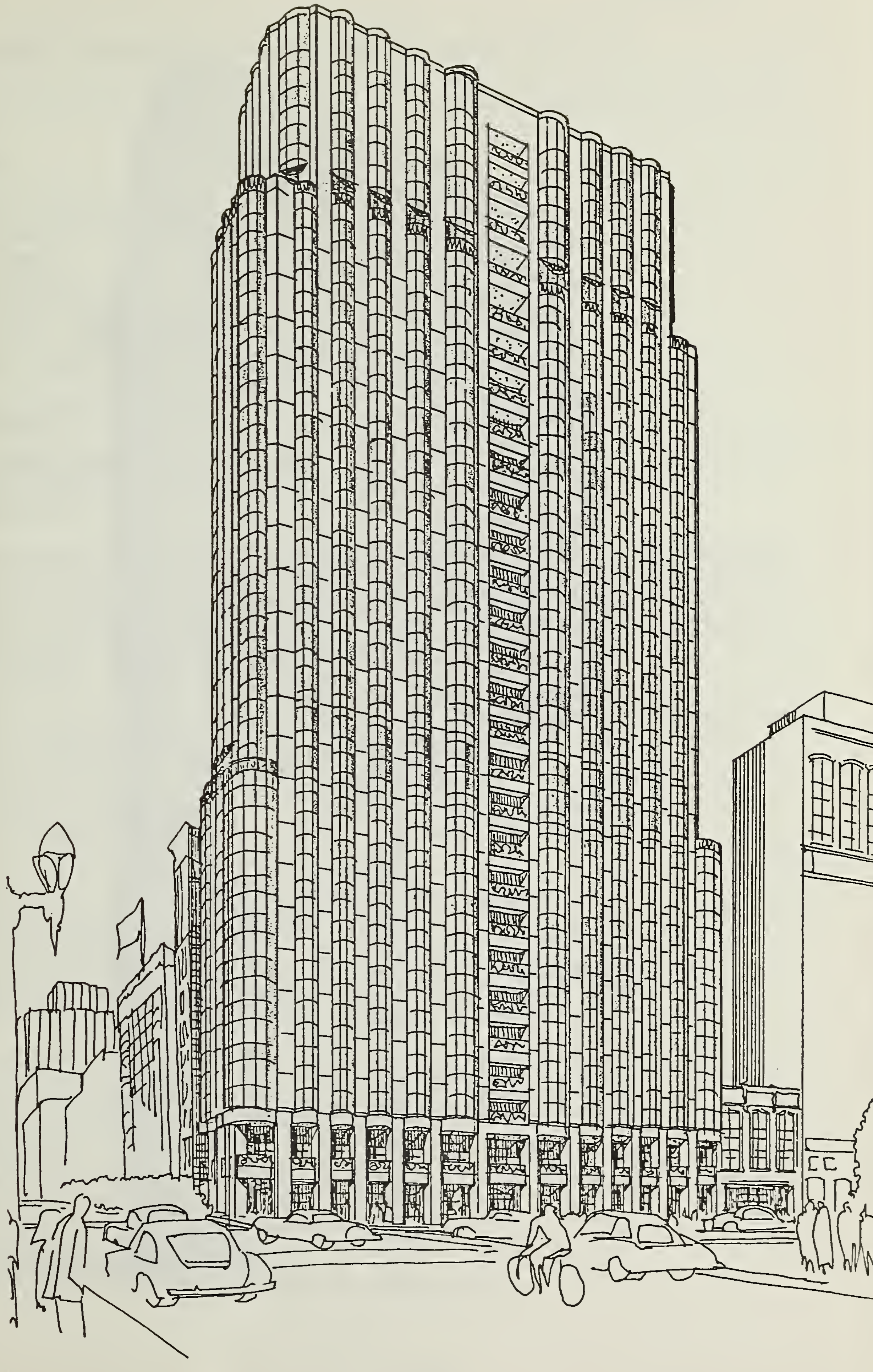
1.) Cahill contributes 39.3% equity or $63.25 p.s.f.

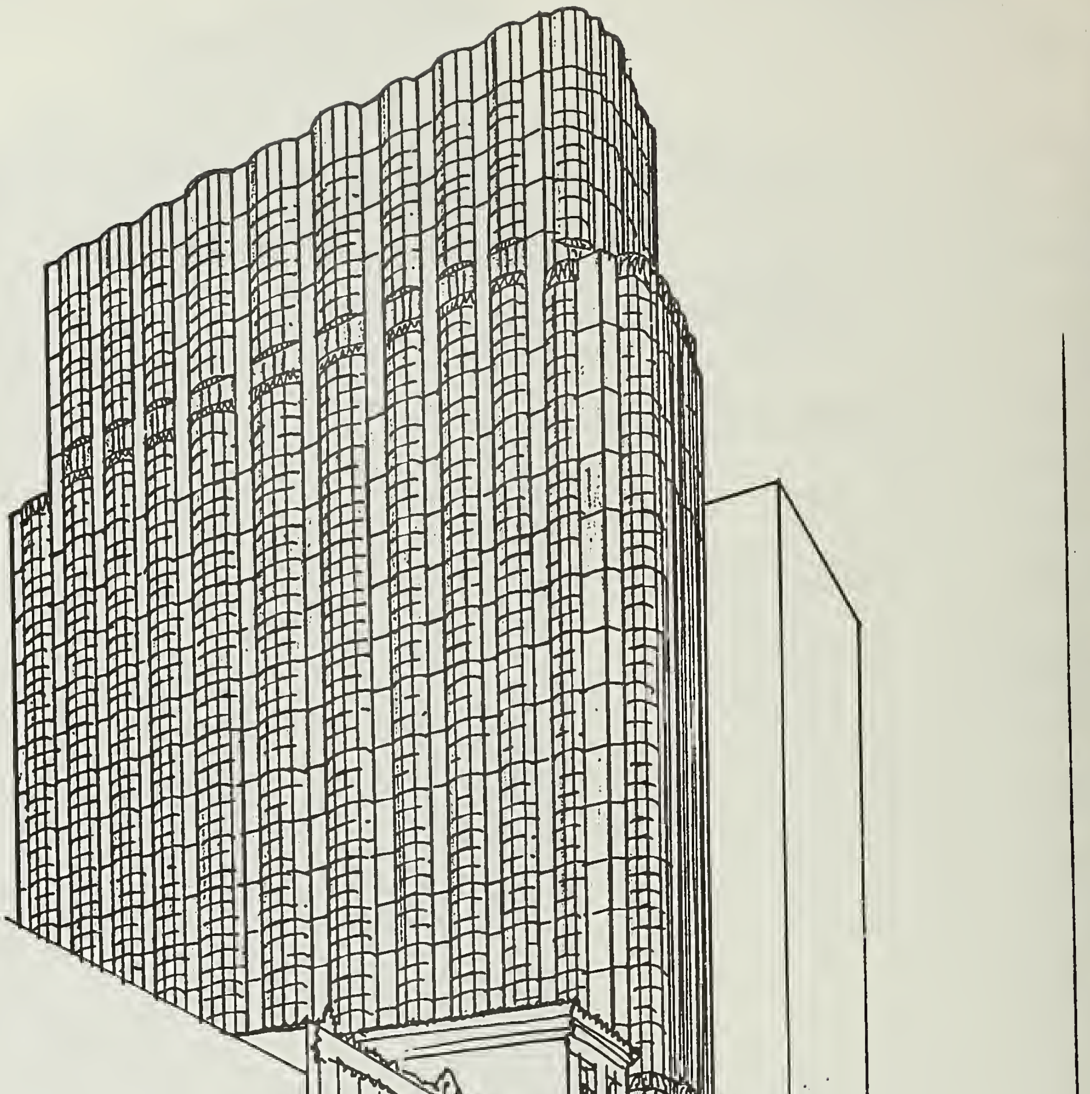
2.) Lender lends balance ($97.75) @ 14% = $13.75 p.s.f. per year.

3.) Cahill desires 15% return on equity = $9.50 p.s.f. per year.

4.) Project makes 15% for Cahill if project net rent is (2 + 3) = $23.25 p.s.f. per year.

5.) Cahill's conservative budget of $19.00 p.s.f. per year would show a return of 8.3%





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San Francisco, CA 94111

Building Owners and Managers
Association
68 Post Street
San Francisco, CA 94104
Elmer Johnson

Building Service Employees Union
Local 87
240 Golden Gate Avenue
San Francisco, CA 94102

S. Cafn
One Embarcadero
23rd Floor
San Francisco, CA

Cahill Construction Company
425 California Street, 23rd Floor
San Francisco, CA 94104
Robert Cahill, Director

California Jones Company
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Kim D. Campbell
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Coalition of San Francisco
  Neighborhoods
1627 Filbert Street
San Francisco, CA 94123
  Harriet Witt

Joseph R. Coriz
2853 22nd Street
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Richard Dowling
463 14th Street
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Downtown Association
582 Market Street
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  Lloyd Pflueger

Russell Faure-Brac
EIP
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Foundation for San Francisco's
  Architectural Heritage
2007 Franklin Street
San Francisco, CA 94109
  Gray Brechin

Friends of the Earth
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San Francisco, CA 94105
  Connie Parrish

Gary A. Goss
434 Duncan Street
San Francisco, CA

Sue Hestor
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San Francisco, CA 94114

Richard Hillerk
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Ted Kreines
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Nob Hill Association
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  Edward Head

Nob Hill Neighbors
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  David B. Vogel

Charles Hall Page and Associates
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San Francisco, CA 94104

Mrs. G. Bland Platt
339 Walnut Street
San Francisco, CA 94118

Gene Pollard
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Potrero Hill League of
Active Neighbors
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Ms. Maria J. Vermiglio

Questor Associates
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San Francisco, CA 94104

Bradly Rose
c/o Vanity Fair
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Richard Rothman
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San Franciscans for Reasonable
Growth
c/o San Francisco Tomorrow
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San Francisco, CA 94105
Carl Imparato
John Elberling

San Francisco Beautiful
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H. Klussmann, President

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Joel Ventresca
202 Grattan Street
San Francisco, CA 94117

Maria Vermiglio
951 Rhode Island
San Francisco, CA 94107

Yoshpe Engineers
1917-22nd Street
Sacramento, CA 95816
R. Wood

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Associated Real Estate Corporation
321 Bush Street, #402
San Francisco, CA 94104

Crocker-Citizen's Property
Corporation
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San Francisco, CA 94104
E.G. Rider

Equitable Montgomery Company
120 Montgomery Street
San Francisco, CA 94104
Frederick Grimes,
Building Manager

Ernest and Jeanne Ingold
805 Irwin Court
Hillsborough, CA 94010

The Lurie Company
555 California Street, #5100
San Francisco, CA 94104

180 Montgomery, Ltd.
c/o C and C Investments
101 Howard Street
San Francisco, CA 94105

Wells Fargo Bank
c/o Equitable Life Assurance
Society
44 Montgomery Street, Dept. E
San Francisco, CA 94104

SAN FRANCISCO

CITY PLANNING COMMISSION

RESOLUTION NO. 8941

WHEREAS, A draft environmental impact report, dated January 16, 1981 has been prepared by the Department of City Planning in connection with EE80.26 101 Montgomery Street on the property described as follows:

> 105-145 Montgomery Street and 25 Trinity Street, Lots 2, 3, 4, 5, 6 and 26 in Assessor's Block 288, bounded by Montgomery, Sutter, Trinity and Bush Streets; and

WHEREAS, The Department duly filed a notice of completion of the draft report with the Secretary of the California Resources Agency, gave other notice and requested comments as required by law, made the report available to the general public and satisfied other procedural requirements; and

WHEREAS, The City Planning Commission held a duly advertised public hearing on said draft environmental impact report on February 19, 1981, at which opportunity was given for public participation and comments; and

WHEREAS, A final environmental impact report, dated May 7, 1981, has been prepared by the Department, based upon the draft environmental impact report, any consultations and comments received during the review process, any additional information that became available, and a response to any comments that raised significant points concerning effects on the environment, all as required by law; and

WHEREAS, On May 7, 1981, the Commission reviewed the final environmental impact report, and found that the contents of said report and the procedures through which it was prepared, publicized and reviewed comply with the provisions of the California Environmental Quality Act, the Guidelines of the Secretary for Resources and San Francisco requirements;

THEREFORE BE IT RESOLVED, That the City Planning Commission does hereby find that the Final Environmental Impact Report, dated May 7, 1981 concerning EE80.26, 101 Montgomery Street is adequate, accurate and objective, and does hereby CERTIFY THE COMPLETION of said Report in compliance with the California Environmental Quality Act and the State Guidelines;

AND BE IT FURTHER RESOLVED, That the Commission in certifying the completion of said Report does hereby find that the project as proposed will have significant effects on historic and cultural resources, traffic and pedestrian use on streets adjacent to the proposed project, and, in combination with other projects proposed and under construction in downtown San Francisco, will have a significant effect on housing demand in the City and on transportation in the downtown area.

I hereby certify that the foregoing Resolution was ADOPTED by the City Planning Commission at its regular meeting of May 7, 1981.

Lee Woods, Jr.
Secretary

AYES: Commissioners Bierman, Karasick, Kelleher, Klein, Nakashima, Rosenblatt, Salazar.

NOES: None

ABSENT: None

PASSED: May 7, 1981.

XIII. APPENDICES

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APPENDIX A: SITE HISTORY AND ARCHITECTURE

SITE HISTORY

Dune sand covered the project site during San Francisco's early years of growth, but by 1853, building trends reversed and expansion shifted south on Montgomery St. The U.S. Coast Survey Chart of 1853 indicates scattered buildings on the project site and an underground cistern at the corner of Montgomery and Bush Sts. Larger, more substantial buildings are shown on the project site in the U.S. Coast Survey Chart of 1857. By that time, Montgomery St. was becoming a major business street as well as a fashionable retail and hotel area. The Lick House on the corner of Sutter and Montgomery, and the Occidental Hotel on the east side of Montgomery between Bush and Sutter, established the character of the area. By 1867, almost every building on the block displayed a classical influence, although a few one-story false-front frame structures remained. The most impressive structure on the project site was the F. W. Tucker and Company building, located on the present site of the California Pacific Building at the intersection of Montgomery and Sutter Sts. A large clocktower, which rose above the neighboring buildings, distinguished the location.

By 1876, the project site was fully developed and the older frame structures had been replaced. The project site remained an exclusive retail block, as more businesses such as the Pacific Fur Emporium (located at the present site of 125-129 Montgomery St.) opened their doors.

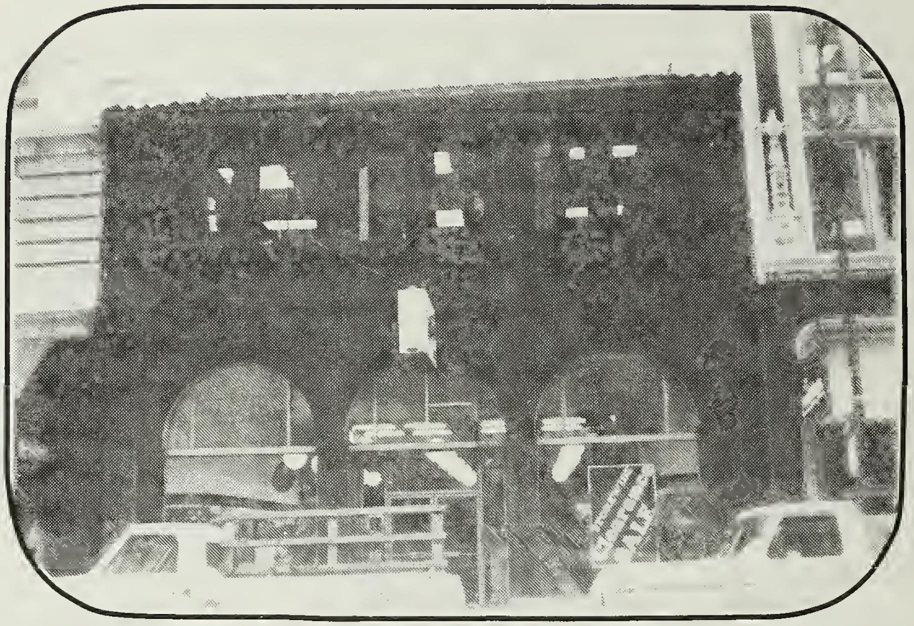
All buildings on the project site were destroyed by the 1906 earthquake and fire. Rebuilding began almost immediately and in 1907 109-123 Montgomery St. and 125-129 Montgomery St., both two-story structures, were completed. The California Pacific Building at 105 Montgomery was completed in 1910, but the project site was not completely rebuilt until 1921, when the Steil and Alexander Buildings were completed at the corner of Bush and Montgomery St.

ON-SITE ARCHITECTURAL RESOURCES

Five of the structures which now occupy the project site were included in independent architectural surveys conducted by the San Francisco Department of City Planning and the Foundation for San Francisco's Architectural Heritage (see Appendix B, p. 287). The survey ratings that were assigned to each building on and fronting the project site are shown in Figure 12, p. 26; each survey and its rating system is discussed in Appendix B. Each of the historic buildings on the site is discussed in detail below and is shown in Figure A-1.

Steil Building (141-145 Montgomery St.)

Charles P. Weeks & William P. Day, San Francisco architects, designed the Steil Building in 1921. The structure is four stories tall and three bays wide; the concrete frame is sheathed with glazed terra cotta (see Figure A-1). Gothic ornamentation enriches the spandrels, pilasters and frieze. Moldings, urns and medallions are used throughout the design. Pairs of

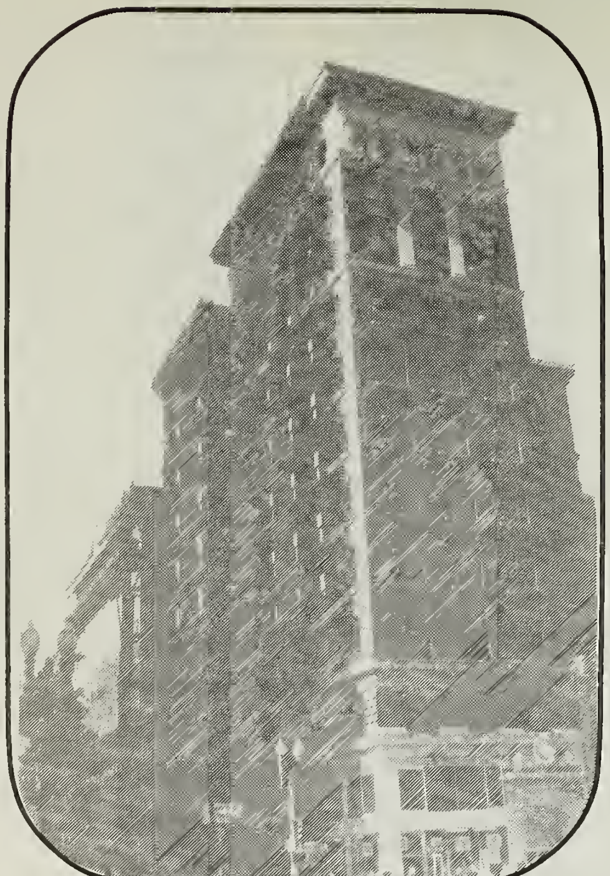


133-137 Montgomery Street

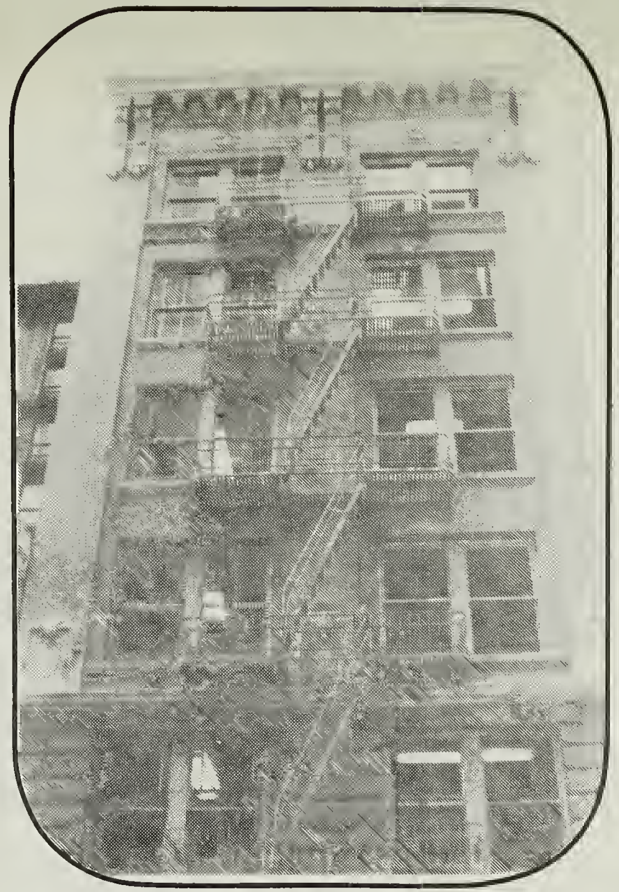
109-123 Montgomery Street

SOURCE: Environmental Science Associates, Inc.

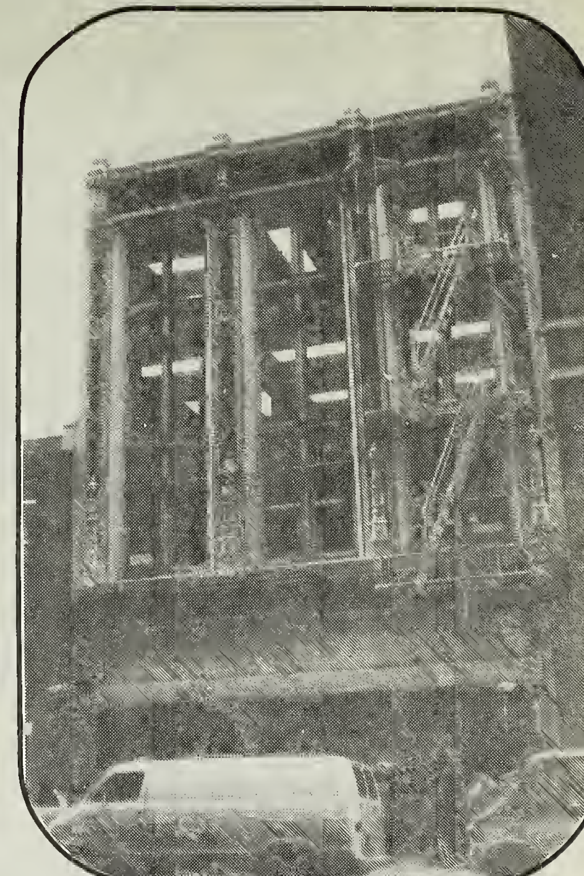
FIGURE A-1: BUILDINGS ON PROJECT SITE



California Pacific Building
(105 Montgomery Street)



Wilson Building
(125-129 Montgomery St.)



Steil Building
(141-145 Montgomery St.)

SOURCE: Environmental Science Associates, Inc.

FIGURE A-1: BUILDINGS ON PROJECT SITE
(CONT.)

casement windows fill each bay. The ground level storefront has been partially remodeled, leaving the character of the original design intact. The building acts as a transitional structure between the adjacent small commercial structures and the 15-story Alexander Building at the southwest corner of Bush and Montgomery Sts.

The Planning Department Survey gave the Steil Building a summary rating of "1". No outstanding qualities were noted. The Heritage Inventory evaluated the building as one of the "B" group of San Francisco's most significant structures. Both the building's design by Weeks and Day and the minor alterations were considered excellent features. The Steil Building is therefore eligible for ~~listing~~ on the National Register of Historic Places and for designation as a City Landmark. The Steil Building is of reinforced concrete construction with wood floors and roof; it has no enclosed stair tower.

<u>133-137 Montgomery St.</u>

The two-story commercial structure at 133-137 Montgomery St. was built in 1919. It is constructed of brick with a concrete exterior faced with stucco (see Figure A-1, p. 282). The two-part symmetrical design is composed of an arcaded ground level; the second floor is distinguished by a horizontal window band and decorative panels. Ornamentation is lightly Renaissance/Baroque and serves to unify the composition of the building. Small pilasters with slight relief detailing are located between windows and panels. A decorative frieze between the window band and tile roof completes the design. Alterations have been confined to a partially remodeled storefront within the arcade. The small scale of the building is consistent with other structures on the block, and its ornamentation and form add variety to the area.

The Planning Department Survey gave the building a summary rating of "0". No outstanding architectural qualities were recorded. The Heritage Inventory rated the structure as a "C" building and cited a minimum of alterations as an excellent feature. The building is of unreinforced brick construction with wood floors; it has no enclosed stair tower.

<u>Wilson Building (125-129 Montgomery St.)</u>

The six-story Wilson Building at 125-129 Montgomery St. was built in 1907. It is a simple, two-part vertical composition with Renaissance/Baroque detailing (see Figure A-1, p. 282). The ground level arcade is enriched with compound Corinthian pilasters. Further ornamentation of the plain brick facade consists of swag medallions and large brackets. Two pairs of coupled windows distinguish the upper floors. A fire escape zig-zags down the facade between the paired windows. One storefront has been remodeled with the addition of modern doors and by filling in one arch. The scale of the building is consistent with other small commercial structures on the block.

A summary rating of "0" was assigned to the building by the Planning Department Survey. No outstanding architectural traits were listed. The Heritage Inventory rates the structure as a "C" building, noting no particular

architectural features or historical associations. The building is of unreinforced brick construction with wood floors; it has no enclosed stairway.

109-123 Montgomery St.

Built in 1907, 109-123 Montgomery St. is a small two-story brick commercial structure with expansive upper story window openings (see Figure A-1, p. 282). Ornamentation is drawn from Renaissance/Baroque sources and is limited to the cornice and storefront treatments. Fenestration at ground level consists of transom and small-paned, fixed wooden sash windows. Alterations have included the removal of transom windows and remodeling of storefronts. The scale of the building is also consistent with other small-scale structures on the block.

The Planning Department Survey gave the building a summary rating of "0", noting no outstanding architectural qualities. The Heritage Inventory placed the building in the "C" group of structures. Its low horizontal mass was noted as it permits a view from Montgomery St. of the fine side facade of the French Bank Building. The structure is of unreinforced brick construction with wood floors; it has no enclosed stairway.

California Pacific Building (105 Montgomery St.)

The 11-story California Pacific Building was designed by the Reid Brothers in 1910. It is the last remaining example of the firm's San Francisco skyscrapers. In composition, the building is a variation of a three-part vertical block with horizontal transitional zones at the base and capital (see Figure A-1, p. 282). The simple, undifferentiated pier and spandrel system is divided into five bays on the Sutter St. facade and three bays on the Montgomery St. facade. An off-center entrance is set in a frame heavy with ornamentation drawn from Renaissance/Baroque sources. Double-hung, wooden-sash windows positioned between two bracketed shelves separate the base from the six-story shaft. Design emphasis is placed on the three top floors. Ionic pilasters occupy the upper transitional story and cream-colored terra cotta detailing surrounds paired arched windows in the capital. The green copper classical cornice is embellished with dentils, medallions and moldings. Alterations have been minimal and are confined to the ground floor.

In the local urban design context, the California Pacific Building and the Alexander Building (149-157 Montgomery St.) act as a frame for the smaller-scale mid-block commercial structures fronting Montgomery St. The California Pacific Building also acts as an effective end point of the 100 block of Sutter St. (see Figure 11, p. 24). The group functions as a capsule history of downtown architectural types and styles of the 20th century, with the California Pacific Building representing the masonry-walled building type characteristic of San Francisco's Financial District.

The Planning Department Survey gave the California Pacific Building a summary rating of "2". Noted in particular were the quality of the cornice and frieze and their contribution to the streetscape. The Heritage Inventory evaluated the California Pacific Building as one of the "B" group of San Francisco's most significant structures. Therefore, it is eligible for listing on the

National Register and is of secondary priority for City Landmark status.The structure is of concrete and steel construction and has no enclosed stairway.

The California Pacific Building is the easternmost structure in the Historic Retail-Shopping District, determined by the Heritage Survey to be the finest of San Francisco's historic districts in terms of architectural quality. The district is one of eight areas in San Francisco which appear to be eligible for listing as National Register Historic Districts under the criteria of the National Register of Historic Places.

APPENDIX B: ARCHITECTURAL EVALUATION SYSTEMS

The architectural ratings discussed in the text of this report (see Section III.A., Cultural Resources, p. 22; and Figure 12, p. 26) represent the results of two separate architectural surveys, each of which is discussed below.

SAN FRANCISCO DEPARTMENT OF CITY PLANNING SURVEY

Between 1974 and 1976, the San Francisco Department of City Planning conducted a citywide inventory of architecturally significant buildings. An advisory review committee of architects and architectural historians assisted in the final determination of ratings for the 10,000 buildings which were entered in an unpublished 60-volume record of the inventory. The rated buildings have been represented on a set of color-coded maps which identify the location and relative significance of each building surveyed. The maps are available for public inspection at the Department of City Planning.

The inventory assessed the architectural significance of the surveyed structures from the standpoint of overall design and particular design features. Both contemporary and older buildings were included, but historical associations were not considered. Each building was numerically rated according to its overall architectural significance. The ratings ranged from a low of "0" to a high of "5". Factors considered included architectural significance, urban design context, and overall environmental significance. The architectural survey resulted in a listing of the best 10% of San Francisco's buildings. In the estimation of the inventory participants, buildings rated "3" or better represent approximately the best 2% of the City's architecture.

HERITAGE SURVEY

More recently, the Foundation for San Francisco's Architectural Heritage, through its consultants, Charles Hall Page & Associates, Inc., conducted an architectural and historical survey of all downtown structures. In 1979, the inventory results were published in the book Splendid Survivors. Criteria considered in rating the buildings included Architectural Significance, Historical/Cultural Significance, Environmental Significance and Negative Alterations. Summary ratings from "A" to "D" were then assigned to each building on the basis of these scores. The summary ratings indicate the following:

A. Highest Importance. Individually the most important buildings in downtown San Francisco. All "A" group buildings are eligible for the National Register and have highest priority for City Landmark status.

B. Major Importance. Buildings which are of individual importance by virtue of architectural, historical, and environmental criteria. "B" group buildings are eligible for the National Register and are of secondary priority for City Landmark status.

C. Contextual Importance. Buildings which are distinguished by their scale, materials, compositional treatment, cornice and other features. Many "C" group buildings may be eligible for the National Register as part of historic districts.

D. Minor or No Importance. Buildings which are insignificant examples of architecture. Most "D" group buildings are "sites of opportunity".

NOT RATED. Buildings which have been built or suffered insensitive exterior remodelings since 1945.

APPENDIX C: EMPLOYMENT, HOUSING AND FISCAL FACTORS

RESIDENCE PATTERNS OF DOWNTOWN OFFICE WORKERS

Concern about where downtown office workers live arises for two reasons in the evaluation of new office development. First, it is necessary input into the transportation impact analysis of the EIR. Second, it helps identify who benefits from downtown office development.

The office workers who should be considered in the transportation impact analysis of a new building are different from those who would benefit from new employment opportunities. Much confusion, however, arises from the failure to distinguish between the two groups. This appendix will explain the distinction and discuss the process and difficulties of estimating residence patterns of the two groups of workers.

A Dynamic Downtown

When a new office building is built, it increases office space in San Francisco and thereby accommodates employment growth. The new jobs, however, do not necessarily end up in the new building. Instead, existing businesses often move from existing to new space and a series of shifts occur whereby tenancies change in a number of buildings. The new jobs will be in new or expanded businesses, but these businesses will end up distributed throughout downtown.

The workers newly employed in San Francisco will not necessarily hold the new jobs. Workers frequently change jobs. Most of the job openings in the City each year are previously existing jobs from which someone has quit or been fired. Only a small percentage are new jobs. Likewise, most people looking for work will be people who either quit, were fired, or were laid off from some other job in San Francisco. Only a small percentage will be people who previously did not work in the City. Since workers looking for a job will look for any job (new or old), most people who get the new jobs will be people previously employed in other jobs (since they represent a large majority of all job seekers). According to the U.S. Bureau of Labor Statistics, the average length of time workers stay on their jobs is about 6-7 years. Thus, about 15% of all existing jobs become vacant each year because the person holding it either quits or is fired. The Association of Bay Area Governments (ABAG) estimates that between 1980 and 1985 the average number of jobs in San Francisco will be 563,400 and the average increase in employment each year will be 8,300. Thus, job openings in the City each year will include about 84,500 vacated existing jobs (15% of 563,400) and 8,300 new jobs. New jobs will, therefore, represent only about 9% of all job openings. Likewise, only a small percentage of all job seekers will be people not previously employed in the City. Therefore, about 91% of the people who get the 8,300 new jobs each year will be people who were previously employed elsewhere in San Francisco (Edward S. Sekscenski, "Job Tenure Declines as Work Force Changes," Monthly Labor Review, December 1979, p. 49; ABAG, Projections 79, 1980).

Two Groups of Workers

In estimating the transportation impact of a new building, attention must be focused on one group of workers: those who will work in the new building. Because most businesses in a new building are businesses that were previously located elsewhere in San Francisco, and because most employees of new businesses are people who were previously employed elsewhere in San Francisco, the great majority of people working in the new building will be people who previously worked elsewhere in San Francisco.

On the other hand, in assessing who benefits from job growth in the City, attention must be focused on another group of workers: those newly employed in San Francisco. These people will not necessarily be either in the new office space or the new jobs.

Residence Patterns of Employees in a Proposed New Building

Context for Making an Estimate

The process of shifting tenancies and turnover in existing jobs (as described above) tends to make the residential distribution of employees in a new building similar to the average for all of downtown. Many tenants of a new building are likely to have moved from another building in downtown. Few of their employees, therefore, will be people who only recently began working in San Francisco. And if new businesses locate in the building, most of their employees will be people who previously worked elsewhere in San Francisco and so will have residence distributions similar to people employed in previously existing jobs.

A survey conducted by the Downtown San Francisco Flextime Demonstration Project verifies the above conclusion. The project surveyed employees of three major downtown insurance companies. It found that the residence patterns or workers recently hired and those who had been with the companies a long time were similar./1/ Therefore, it may be assumed that workers recently hired into new jobs will likewise have residence patterns similar to workers in previously existing jobs.

Without knowing the particular tenants who will occupy a new building, the most reasonable estimate of the residence pattern of employees in the building is that it will be similar to residence patterns for similar existing buildings in similar locations. This would be true even if the people newly employed downtown as a result of the new office space had residence patterns different from workers employed downtown before the building's construction. The process of shifting tenancies and workers would tend to make the new building similar to the average.

Of course, if people newly employed in San Francisco have a different residence pattern than existing employees, the average will change. But, in considering only one building, the average will change by only a very small amount. Office employment in downtown San Francisco is about 212,000 in

1980.* In this EIR (for reasons to be explained shortly), 40% of downtown office employees are assumed to be San Francisco residents.** The project would result in a net increase in 890 jobs downtown. Even if all those jobs were taken by non-San Francisco residents (and there is no reason to assume this would be true), the new jobs would only change the percentage of jobs held by San Franciscans to 39.8%***

Certainly there is no reason to assume that the new building will be exactly like the average. Probably no existing building is exactly like the average. But, in the absence of any information that can indicate how and to what degree the building would differ from the average, the most accurate estimate of residence patterns is that they will be like the average. Many factors might, in fact, explain why an individual building's residence pattern varies from the average. Among such factors could be the age of the building, the average earnings of the employees, the industry of the tenants, the proximity to transportation facilities (a building near a BART station might have a higher proportion of East Bay residents), etc. No study has been done, however, to correlate these factors to the variation in employee residence patterns. In the absence of any such study, the most defensible estimate is that the residence pattern for a new building will approximate the average.

The only reliable way in which to estimate how employees in a new building will differ in their residence patterns from the average is if the tenant is known and its employee can be surveyed. Even in this case, however, it is likely that the residence patterns would shift after the tenant moves. If the new location, for example, is inconvenient to an employee, he or she may try to get another job with a company near the old location. Likewise, the new location might make employment in the company attractive to some people who had found the old location inconvenient. It is also possible that an employee would change residence to increase the convenience of the new job location.

Data from Recent EIR's

Four recent EIR's for downtown office buildings relied on surveys of likely project occupant employees to estimate where employees associated with the respective projects would live. A weighted average of these four surveys was calculated and used in the EIR for the 456 Montgomery Building. This EIR also uses that average. The average is shown in Table C-1.

*An estimate based on 59 million sq. ft. of gross office space, 90% leasable, with 250 sq. ft. per employee.

**The 40% figure is probably most applicable to employees working in Financial District high-rises. For demonstration purposes, however, it is assumed that 40% of all downtown office employees are San Francisco residents.

***The impact of new jobs would still be of the same approximate magnitude if the current average percentage of office employees who are San Francisco residents were assumed to be something other than 40%. If 60% were assumed and if all of the 890 increase in jobs were taken by non-San Francisco residents, the average would be reduced to 59.8%

TABLE C-1: RESIDENTIAL DISTRIBUTION OF SURVEYED DOWNTOWN OFFICE EMPLOYEES IN SAN FRANCISCO

Area of Residence		Percentage of Workers
San Francisco		40
Downtown/Northeast	7	
Northwest	15	
Southwest	13	
Southeast	5	
Peninsula (San Mateo and Santa Clara Counties)		18
East Bay (Alameda and Contra Costa Counties)		30
North Bay		12

SOURCES: 456 Montgomery Street DEIR (EE 79.178) based on Federal Reserve Bank of San Francisco FEIR (EE 78.207), 101 California Street FEIR (EE 78.27), Crocker National Bank FEIR (EE 78.298), and Pacific Gateway FEIR (EE 78.61).

Data from Other Surveys

Journey to work data from a number of sources are presented in Table C-2. As noted, the data are not directly comparable primarily because of differences in the types of respondents surveyed. Overall, it appears that the percentage of Financial District office jobs held by San Francisco residents is lower than the corresponding percentages for all types of jobs in San Francisco or in the downtown/civic center area. Discussion in the SPUR study suggests a similar conclusion.

Despite the differences among surveys, the EIR data compare favorably with the other sources and are most similar to the SPUR results, the only other survey solely of office employees.

Cumulative Perspective

If a large number of new buildings are under consideration simultaneously, average residence patterns of employees in existing buildings downtown might have to be revised slightly to be of use in estimating residence patterns of employees in new buildings. If residence patterns of workers newly employed downtown differ significantly from those of previously employed workers and a substantial amount of office space is added downtown, average residence patterns might change by more than the very small amount demonstrated above.

TABLE C-2: COMPARISON OF RESIDENTIAL PATTERNS FOR EMPLOYEES IN SAN FRANCISCO

Place of Residence	U.S. Census*	DCP Transportation Section **	MTC BART Survey***	SPUR+	EIR Data++
San Francisco	60 %	58 %	52 %	40 %	40%
Peninsula	17	14	19	13	18
East Bay	13	20	18	24	30
North Bay	8	8	8	19	12
Elsewhere and Not Reported	2	--	--	4	--
Area Covered	All of San Francisco	Civic Center Area	Downtown Areas Near BART Stations	Greater Downtown Area	Selected Downtown Office Buildings
Employees Covered	All Employees	Government Employees	All Employees	Office Workers	All Employees of 4 Firms & the Federal Reserve Bank
Date	1970	1978	1977	1974	1978-79

SOURCES: * 1970 U.S. Census of Population, Journey to Work, Table 1.

** Survey of government employees within about a 3-block radius from City Hall, conducted by Department of City Planning Transportation Section, 1978.

*** Metropolitan Transportation Commission (MTC) data on employees working within a 10-15 minute walk or bus ride from downtown BART stations. From 1977 Work Travel Survey for BART Impact Program.

\+ From survey of 1,022 office workers employed by 41 different firms located in area bounded by Van Ness, Broadway, The Embarcadero, and Bryant St. San Francisco Planning and Urban Renewal Asociation, Impact of Intensive High-Rise Development on San Francisco, 1975, p. 110.

++ Weighted average of expected employees in the Federal Reserve Bank (EE 78.207), 101 California Street (EE 78.27), Pacific Gateway, (EE 78.61), and Crocker National Bank (EE 78.298). From 456 Montgomery Street Draft EIR (EE 78.178), p. 126.

This cumulative impact of office development is accounted for in the final section of this appendix where a range of projections of the possible residence patterns of employees in new office buildings in 1982 are derived. To make these projections it becomes necessary to project what percentage of the growth in San Francisco employment will go to San Francisco residents. This is the same question as who benefits from job growth in San Francisco.

Beneficiaries of Downtown Employment Growth

Context for Consideration

The extent to which downtown employment growth provides jobs for San Francisco residents is difficult to estimate for a number of reasons.

First, who gets the new jobs is only partly determined by how employment and population change in the City. Equally important are regional developments in employment and population growth, as well as the growth of transportation systems. Residents of the northern part of the Peninsula might become less interested in working in San Francisco, for example, if office growth occurs near their homes. With those workers out of the San Francisco labor market, San Franciscans would probably hold more of the jobs in San Francisco.

Second, beyond questions of causation are the practical problems of a lack of data. On the assumption that changes in the near future will approximate changes in the recent past, adequate data from the past could be useful. Data are needed on the number of jobs in the downtown area and the number of those jobs held by San Franciscans. With comparable figures over a period of a few years, the change in employment and the change in San Franciscans employed downtown could be isolated and the proportion of new jobs going to San Franciscans computed. Although surveys have been done to procure this information at various times and by varous organizations in recent years, there are problems of comparability. As we have seen above in Table C-2, different surveys measure different things. Some measure all workers, others only office workers. Some measure workers throughout San Francisco. others only in downtown. Those that concentrate on downtown alone invariably have different definitions of downtown. In other words, there are no directly comparable surveys that have been done at two points in time.*

In the absence of appropriate data, forecasts by the Association of Bay Area Governments (ABAG) have been used to claim that 14% of new office jobs will go to San Francisco residents between 1975 and 1990. This number is derived from ABAG projections which estimate that between 1975 and 1990 the number of employed San Francisco residents will increase by 17,800 and the number of new jobs created in the City will be 125,300. Because 17,800 is 14% of 125,300,

*Even such a survey would not identify the residence patterns of new workers. Rather, it would identify the change in the number of San Francisco residents employed in San Francisco for a given change in employment in San Francisco. This would differ from the residency of new workers if--as can be expected--some people holding jobs at the time of the first survey do not have jobs at the time of the second survey.

it is concluded that this percentage of new jobs will go to San Francisco residents.*

These two numbers alone, however, do not provide enough information to yield such a conclusion. The 14% figure assumes that the only San Franciscans who take new downtown jobs will be people who were previously jobless (not previously employed residents) and that San Franciscans who become newly employed (the increase in employed residents) will all take one of the new San Francisco jobs. Though this could happen, it is unlikely. To the extent that there are San Francisco residents who are employed outside San Francisco in 1975 but in San Francisco in 1990, the percentage of jobs going to San Franciscans will tend to be higher than 14%. Likewise, to the extent that some of the new job-holding residents in 1990 hold jobs outside of San Francisco, the percentage will tend to be lower than 14%.**

The ABAG numbers, in conjunction with U.S. Census data, can be used to demonstrate how the benefits to residents from San Francisco job growth will vary depending on how the proportion of employed San Franciscans working in the City changes. (Available figures are for the total City and not solely the downtown area.)

Census data from 1975 show that about 59% of those people employed in San Francisco were San Francisco residents and 88% of those employed San Franciscans who reported a fixed place of work were employed in San Francisco./4/ ABAG reports that in 1975 about 495,500 people were employed in San Francisco./5/ Though ABAG has no current official estimate of the number of employed San Francisco residents in 1975, an earlier estimate of 327,300 seems reasonable and will be used here.***

*Comment by Carl Imparato, Crocker National Bank Final EIR, EE 78.298, p. 198. Since this comment was made, ABAG has issued revisions of its data. Projected employment growth in San Francisco between 1975 and 1990 was revised downward from 125,300 to 115,700. In its revised publication, ABAG has not included figures for employed residents. Earlier projections of employed residents will be revised in the future, but since those revisions have not been made and the use of the old data is inappropriate in conjunction with the other updated projections, employed resident projections have been omitted./3/

**This interpretation of the ABAG data was confirmed by Raymond Brady, Program Manager, Data Resouces Systems, ABAG (telephone communication, March 26, 1980).

***The 1979 version of Projections 79 contains the projection mentioned in the text. The 1980 version contains no estimates of employed residents. The 1975 base year estimates of employment and population, however, are exactly the same in the 1979 and 1980 versions. Therefore, it seems reasonable to assume that for 1975, the estimate of employed residents in the 1979 version is consistent with the estimates of employment and population in the 1980 version.

These numbers can be used in two ways to estimate the number of San Francisco residents employed in San Francisco in 1975:

- 495,500 jobs in San Francisco of which 59% were held by San Francisco residents = 289,600 San Francisco residents employed in San Francisco;

- 327,300 employed San Francisco residents of whom 88% were employed in San Francisco = 289,600 San Francisco residents employed in San Francisco.

ABAG forecasts that in 1990 there will be 611,200 jobs in San Francisco, an increase of 115,760 from 1975./6/ A rough estimate of employed residents in that year, extrapolated from ABAG forecasts, is 350,000./7/ By varying the percentage of employed San Franciscans who will work in the City in 1990, we can see what proportion of the net increase in San Francisco employment will go to San Francisco residents. Table C-3 shows the results.

If all employed San Franciscans in 1990 work in the City (case E in Table C-3), 52% of the job growth between 1975 and 1990 would go to residents. On the other hand, if the proportion of employed San Franciscans working in the City remains unchanged (case B), 16% of the job growth would go to San Francisco residents. It is likely that the percentage of jobs that will go to residents will be between these two numbers. It is unreasonable to expect that all employed San Franciscans in 1990 will work in San Francisco. It is also likely that the percentage of employed San Franciscans working in San Francisco will increase between 1975 and 1990, as discussed below.

The number of employed San Franciscans working in San Francisco can increase without increasing the total number of employed residents. First, San Francisco households with workers employed outside of San Francisco in 1975 could be replaced by households with workers employed in San Francisco. Second, San Francisco residents employed outside San Francisco in 1975 could be working in San Francisco in 1990. There are two reasons to expect that either or both of these changes will occur:

1. Though precise data on the demographic shifts in San Francisco in recent years are not available, "gentrification" appears to be occurring in be City. The best indirect evidence for this comes from the housing market which has been characterized by sharply rising rents and housing prices and the conversion of rental units into condominiums. The trend toward smaller household sizes suggests that a fast-growing segment of the population is young adults without children. High-paying professional and managerial jobs in San Francisco offer them the best opportunities to earn incomes necessary to purchase or rent in the San Francisco housing market.

2. With gasoline prices continuing to rise, people will want to work closer to their homes. San Francisco residents working outside the City would either move closer to where they work or find a job in the City. If they move out of the City, they are likely to be replaced by someone who works in the City (since most employed residents work in the City), thus increasing the percentage of employed San Franciscans working in the City. The percentage would likewise increase if they, instead, switch to a job in the City. Growing employment opportunities in the City would

TABLE C-3: SAN FRANCISCO RESIDENTS' SHARE OF SAN FRANCISCO EMPLOYMENT GROWTH UNDER ALTERNATIVE RESIDENCE ASSUMPTIONS

	1975	1990				
		A	B	C	D	E
Employed Residents of San Francisco	327,000	350,000	350,000	350,000	350,000	350,000
-Percent Employed in San Francisco	88	85	88	90	95	100
-Number Employed in San Francisco	289,600	297,500	308,000	315,000	332,500	350,000
Employment in San Francisco	495,500	611,200	611,200	611,200	611,200	611,200
-Percent Held by Residents	59	49	50	52	54	57
-Number Held by Residents	289,600	297,500	308,000	315,000	332,500	350,000
Increase in Employment in San Francisco, 1975-90	---	7,900	18,400	25,400	42,900	60,400
Increase in Employment in San Francisco, 1975-90	---	115,700	115,700	115,700	115,700	115,700
Percent of Increase in San Francisco Employment Going to Residents of San Francisco	---	7	16	22	37	53

SOURCES: Association of Bay Area Governments; U.S. Census Bureau; Recht Hausrath and Associates.

facilitate this, though such job switches would be less likely to the extent that the skills of residents working outside the City are not the skills needed in the new jobs.

Residence Patterns of Downtown Office Workers in 1982

Average residence patterns of downtown office workers in 1982 are of interest from a cumulative perspective since a number of new buildings are currently under construction. As discussed earlier in this appendix, average residence patterns for use in transportation impact analysis might change by 1982 (year of initial occupancy of the project) if a substantial amount of new office space is added by then.

Residence patterns of downtown office workers in 1982 can be derived if four factors are known:

1. The Percentage of Downtown Office Workers in 1980 Who Live in the City - As discussed above, surveys show that residence patterns of downtown workers differ depending on how downtown is defined. Surveys for four EIR's that found that 40% of office employees live in San Francisco focused on employees of large employers located in the Financial District. This description closely fits that location and probable tenants of the project. Thus, it is assumed that in the area under consideration, 40% of the employees in 1980 live in the City.

2. The Number of Office Workers Downtown in 1980 - The number of workers in the Financial District in 1980 is estimated by ABAG to be 113,600 in 1980./8/ Perhaps 100,000 of them are office workers.

3. The Increase in Downtown Office Employment Between 1980 and 1982 - There is no good source for projecting office growth in the area. ABAG projections suggest little overall employment growth and provide no means to isolate office employment. Based on office growth over the 1970's, however (and after accounting for demolition of old buildings), perhaps 1.5 million gross sq. ft. of office space will be built each year./9/ At 250 sq. ft. per employee, employment would increase by 6,000 each year, or by 12,000 between 1980 and 1982.

4. The Percentage of People Newly Employed Downtown Between 1980 and 1982 Who Live in San Francisco - As discusssed above, San Franciscans can be expected to account for between 16% and 52% of the City's job growth between 1975 and 1990. The percentage of Financial District jobs in 1982 that will be held by San Franciscans will be derived below under both of these assumptions. (This derivation assumes that San Franciscans' share of new Financial District employment is the same as their share of employment growth city-wide.)

The derivation of estimates of Financial District office jobs in 1982 that will be held by San Francisco residents is shown in Table C-4. As indicated, the average percentage of jobs held by San Franciscans will probably change very little as a result of the cumulative growth of downtown employment by 12,000 jobs (representing the possible change 1980-1982). The estimate of 40% for 1980 is likely to range from 37-41% for 1982 depending on the percentage

TABLE C-4: PERCENTAGES OF FINANCIAL DISTRICT JOBS IN 1982 HELD BY SAN FRANCISCO RESIDENTS, BASED ON ALTERNATIVE RESIDENCE ASSUMPTIONS

Assumption 1: San Franciscans will get 16% of all job growth:

Time	Jobs	Percentage Jobs Held by San Franciscans	Jobs Held by San Franciscans
1980	100,000	40	40,000
Change Between 1980-82	12,000	16	1,920
1982	112,000	37	41,920

Assumption 2: San Franciscans will get 52% of all job growth:

Time	Jobs	Percentage Jobs Held by San Franciscans	Jobs Held by San Franciscans
1980	100,000	40	40,000
Change Between 1980-82	12,000	52	6,240
1982	112,000	41	46,240

of those newly employed downtown who live in the City (the assumptions tested were 16% and 52% as discussed above).

It is reasonable, therefore, to use the average residential distribution of Financial District office workers in 1980, as derived from the four EIR surveys, to project the residential distribution of employees who would work in a new Financial District office building in 1982.*

*The numbers used in this analysis are not precise. Many, as indicated, are rough estimates and some are not exactly comparable. The purpose here is not to derive a precise estimate of how many Fiancial District jobs will be held by San Franciscans, but to demonstrate that within a reasonable range of estimates, the average residence distribution of Financial District office workers will change very little between 1980 and 1982.

HOUSING CONCERNS ASSOCIATED WITH SAN FRANCISCO JOB GROWTH

The housing impact section estimated that 15 to 30% of the people who would become employed in San Francisco as a result of the project would move into San Francisco as a result of getting their new jobs. This Appendix will explain the derivation of this estimate and discuss some of its implications.

Perspective on Housing Impact

When new jobs become available in San Francisco, people will become employed in San Francisco who were not employed there before. Those who get the new jobs could have lived either in San Francisco or outside San Francisco before securing this employment. As a result of getting their new job, they could either continue to live outside of San Francisco or they could move into San Francisco. Thus, the people newly employed in San Francisco can be classified into four groups:

Group	Residence Before Getting the Job	Residence After Getting the Job
A	Non-San Francisco	San Francisco
B	Non-San Francisco	Non-San Francisco
C	San Francisco	San Francisco
D	San Francisco	Non-San Francisco

Group A includes those who move into San Francisco as a result of job growth. Thus, they can be referred to as the "movers". This is the group that is responsible for the housing impact of downtown development. Its size is estimated to be 15 to 30% of the people newly employed in San Francisco as a result of job growth.

Group B includes those who continue to reside outside of San Francisco and Group C includes those who continue to be residents of San Francisco. Since neither group moves in or out of the City as a result of new employment, they do not add to housing impact.

Group D is likely to be very small. Few people will move out of San Francisco as a result of getting a job in San Francisco. The only such people might be those who, because of their new job, now have the income to buy a house and choose to buy one outside of San Francisco because San Francisco houses are more expensive. In this analysis it is assumed that this group is small enough to ignore for purposes of estimating housing impacts.

Estimating the Number of Movers

The number of people who become employed in San Francisco as a result of the project and who move into San Francisco as a result of getting their new jobs (those in Group A) is estimated indirectly by estimating the size of two other groups for which there are better data. These two groups are:

1. The percent of newly employed people who, after getting their jobs, live in San Francisco. This includes both those who move into the City because

of their jobs and those who already live in San Francisco when hired and continue to reside there. This is the sum of Groups A and C above.

2. The percent of people newly employed in San Francisco who, before getting their jobs, already lived in San Francisco. This is Group C above. These are San Francisco residents who, before getting their San Francisco jobs, either did not work or worked outside San Francisco.

Once the size of these two groups is estimated, the second one can be subtracted from the first to determine the percent of people who move into San Francisco as a result of the new employment.

Estimating the Percentage of New Jobs to be Held by San Francisco Residents

The percent of newly employed people who, after getting their jobs, live in San Francisco (the combination of Groups A and C above) was estimated in the "Residence Patterns of Downtown Workers" section of this Appendix (see Table C-3 and related text). Under alternative assumptions of the percentage of employed San Francisco residents in 1990 who would work in San Francisco, it was estimated that between 16 and 53% of the job growth in San Francisco between 1975 and 1990 would go to San Francisco residents (including those who move into the City because of their jobs and those who already lived in the City when hired).

These are extreme estimates, however, and the probable range is much smaller. It can be expected that fewer than 40% of the new jobs would go to San Franciscans. Currently 40% of downtown jobholders live in San Francisco. Because housing growth in San Francisco in the next few years will be smaller than San Francisco job growth and smaller than housing growth elsewhere in the Bay Area, people newly employed in San Francisco in the future will be less likely to live in San Francisco than are current San Francisco jobholders. Because the reasonable estimate would be higher than 16% and lower than 40%, the following analysis will be conducted with an estimated range of 25 to 35%.

Estimating the Percentage of Jobs Going to People Already Living in San Francisco

It is estimated that between 5 and 10% of the people who become newly employed as a result of job growth in San Francisco will be people who were San Francisco residents before getting their jobs. These are people who would either have not worked or have worked outside San Francisco before getting their job in San Francisco.

It is difficult to estimate the size of this group. The range of possibilities, however, is limited by the estimate made above for the newly employed people who will be San Francisco residents (from 25 to 35%). In the case of 25% of the newly employed people being residents, those who lived in San Francisco before being hired can range from 0 to 25% (i.e. from none to all of them). In the other case, it can range from 0 to 35%.

There is the potential for this group to be large. It can be expected that some San Francisco residents working outside San Francisco will shift to working inside the City because the percentage of residents working in the

City will increase. Also, based on the U.S. Department of Labor's estimates of changes between 1975 and 1990 in labor force participation rates of people of different ages and sexes, approximately 30,000 people who were San Francisco residents in 1975 but were not employed then can be expected to be employed in 1990. This is about one-fourth of the expected job growth in San Francisco in that period. (This does not, however, mean that newly employed residents will take one-fourth of all new jobs. Many newly employed residents will take existing jobs that become vacant, so they will take fewer than one-fourth of the new jobs.)

Building an economic model to estimate accurately the percentage of newly employed people who were residents before getting their jobs would require consideration of such factors as in-migration, out-migration, workers retiring, workers changing jobs, regional housing and employment growth, and many other factors. Because accurate data to build such a model do not exist, and the complexities of the relationships would present difficulties even with good data, the most reasonable way to estimate the number is to make an assumption that, after considering all of its implications, seems reasonable.

Therefore, it has been estimated that 5 to 10% of the newly employed people in San Francisco as a result of the job growth are people who already live in San Francisco.

Estimating Those Who Move

These two sets of estimates generate four possible situations:

Case	Percentage of People Newly Employed in San Francisco Who Are Already San Francisco Residents or Become San Francisco Residents (Group A + Group C)	Percentage of People Newly Employed in San Francisco Who Are Already San Francisco Residents Before Getting Their Jobs (Group C)
1	25	10
2	25	5
3	35	10
4	35	5

The dynamics of workers moving into San Francisco and the resulting impact of job growth on the housing market in San Francisco are described in Table C-4A. For purposes of demonstration, look at Case 1. At the time people become newly employed in San Francisco as a result of job growth, it is estimated that 10% of the new jobholders already live in San Francisco (Line 1). Thus, 90% live outside San Francisco (Line 2). As a result of their new jobs, 15% of the new job recipients will choose to move from outside San Francisco to inside San Francisco (Line 3). These are the "movers" who represent the housing impact of San Francisco job growth. After these people have moved, 25% of all of the new jobholders will live in San Francisco (Line 4). This is the second estimate. (Note that the percentage of workers who move is derived by subtracting the estimate on Line 1 from the estimate on Line 4. It is only for the purposes of describing this dynamic scenario that

TABLE C-4A: PERCENTAGE OF NEW JOBHOLDERS WHO MOVE FROM OUTSIDE SAN FRANCISCO TO INSIDE SAN FRANCISCO UNDER ALTERNATIVE ASSUMPTIONS

Line	Category of Worker	Derivation or Source of Estimate	Case 1	Case 2	Case 3	Case 4
	Before Moving					
1	Percentage of New Job-holders Who are Residents	RHA Estimate	10	5	10	5
2	Percentage of New Job-holders Who are Non-Residents	100 Minus Line 1	90	95	90	95
	Moving					
3	Percentage of New Job-holders Who Move from Outside San Francisco to Inside San Francisco	Line 4 Minus Line 1	15	20	25	30
	After Moving					
4	Percentage of New Job-holders Who are Residents	RHA Estimate	25	25	35	35
5	Percentage of New Job-holders Who are Non-Residents	100 Minus Line 4	75	75	65	65
6	Percentage of Non-Resident Job Recipients Who Move into San Francisco	Line 3 Divided by Line 2	17	21	28	32
7	Percentage of Residents Holding New Jobs Who Were Residents Before Receiving their Jobs	Line 1 Divided by Line 4	40	20	29	14

SOURCE: Recht, Hausrath and Associates

the percentage of workers who move into San Francisco is introduced before the estimate on Line 4 about the eventual percentage of jobholders who are residents.) Because, after some workers have moved 25% of the new jobholders are residents, 75% remain non-residents (Line 5).

For the demonstration case, Case 1, Line 6 reveals that these estimates and the resulting impact estimate mean that 17% of the non-residents who receive jobs in San Francisco choose, as a result, to move into San Francisco. (Ninety percent of the new jobholders are initally non-residents. Fifteen percent move into San Francisco. Fifteen is 17% of 90.) Line 7 shows that these estimates mean that 40% of the residents holding new jobs (after the "movers" move to San Francisco) were residents before getting their jobs. (Twenty-five percent of the new jobholders are residents. Ten percent of the new jobholders are residents who lived in San Francisco before getting their jobs. Ten is 40% of 25.)

Case 1 described above is one extreme. It is the minimum impact case under the two sets of estimates. Case 4, on the other hand, is the maximum impact case. Under it, 30% of the new jobholders would move from outside San Francisco to inside San Francisco. This means that 32% of the non-residents who become newly employed in San Francisco move into San Francisco. It also means that 14% of the newly employed residents were residents before getting their jobs.

The housing impacts identified in the text of the EIR include the range of possibilities from Case 1 to Case 4 (as shown by the 15 - 30% estimates on Line 3 of Table C-4A). Comparison of the four cases in Table C-4A shows the effect of different assumptions on the estimates of housing impact.

The Implications of Other Estimates

If it were assumed that the percentage of new jobholders who are already San Francisco residents were greater than 10%, the housing impact would be reduced. However, the implications of such an assumption seem less reasonable than those of 5 - 10% estimate. If, for example, 15% of the new jobholders were assumed to be already San Francisco residents (Line 1), that would mean as few as 12% (Line 6) of the non-residents who receive jobs would move into San Francisco and that as many as 60% of the new resident jobholders are people who already lived in San Francisco (Line 7).

Similarly, reducing the assumption would increase the housing impact but its implications, too, seem less reasonable than those of the 5 - 10% estimate. If it were assumed that only 2% of the new jobholders are already San Francisco residents, that means that as many as 34% of the non-residents who receive jobs would move into San Francisco and that as few as 6% of the new resident job-holders are people who already lived in San Francisco.

Mover Households

The preceding analysis derived a range of the possible number of people who, because they become employed in San Francisco as a result of job growth there, would move into San Francisco. As described in the impact section of the EIR, the household pattern of these workers would be such that there would be 1.4

downtown workers per household with a downtown worker. Thus, the number of housing units that would be required by those who move into San Francisco would be approximately equal to 11% to 21% of the number of new jobs created in San Francisco. If that number of additional units is not supplied, housing prices would, in theory, rise and some existing residents could be displaced.

Policy Response

Possible mitigation of the housing impact of job growth deals primarily with the provision of new housing in San Francisco to accommodate those households that would move into San Francisco as a result of the job growth. In considering how such a mitigation measure could be implemented, four important implications or consequences of such policies should be considered:

1. Supplying new units would reduce housing price increases from what they otherwise would have been. It would not make a large difference in housing prices, however, because many other factors are fueling housing price increases.

2. Supplying new units would have the desired effect in all price ranges if the new units are at the prices the new residents are demanding.

3. Supplying new units would have the desired effect only if the new units would not have otherwise been supplied in a corresponding time frame. If, however, an office developer's plan to provide housing as a mitigation results in housing that would have been provided by a housing developer anyway, the City's housing stock would not expand over what it would have been without the mitigation.

4. Requirements for office developers to supply new housing could have the effect of reducing the amount of new office space built in San Francisco and of increasing the rents for downtown office space.

Explanation of these points is provided in the sections which follow.

Price Impacts of Job Growth

Rising San Francisco housing prices are due, only in part, to job growth. Many other factors are involved.

Table C-4B examines the probable impact that job growth has on Bay Area housing prices. A comparison of factors in four Bay Area housing markets is shown. Between 1975 and 1979, housing prices aproximately doubled in all four markets, growing fastest in San Francisco (column 1).

At the same time, employment grew least in percentage terms in San Francisco (column 2). Employment growth and the resulting increase in housing demand do not, therefore, fully explain San Francisco's rising housing prices. If job growth were the sole determinant of price increases, prices should have risen least in San Francisco.

Column 3 gives one indication of supply. Growth in the quantity of housing units was slowest in San Francisco. Column 4 combines the impact of demand

changes from employment growth and supply changes from housing stock growth. Employment grew more than six times as fast as the housing stock in San Francisco. In all other areas, employment grew less than three times as fast. So part of the explanation for San Francisco's faster price increases is that employment growth <u>in relation to housing stock growth</u> was fastest in San Francisco.

TABLE C-4B: HOUSING PRICES, HOUSING UNITS, AND EMPLOYMENT IN FOUR BAY AREA HOUSING MARKETS, 1975-79

Housing Market	Percentage Increase in Housing Prices 1975-79	Percentage Increase in Non-Agri-cultural Employment 1975-79	Percentage Increase in Housing Units 1975-79	Percentage Increase in Employment 1975-79 Divided by Percentage Increase in Housing Units 1975-79	Employment Divided by Housing Units (1975)
San Francisco	114.1	11.4	1.8	6.2	1.54
Peninsula	101.5	24.3	9.1	2.7	1.08
North Bay	96.6	24.1	13.6	1.8	.71
East Bay	91.3	15.6	6.9	2.3	.94

Notes:
San Francisco market is San Francisco County.
Peninsula market is San Mateo and Santa Clara Counties.
North Bay market is Marin, Napa, Sonoma, and Solano Counties.
East Bay market is Alameda and Contra Costa Counties.
Housing unit figures are from the California Department of Finance and are for January of 1975 and 1979.
Employment figures are from the California Employment Department and are for December of 1974 and 1978.

Housing price figures are from Real Estate Research Council of Northern California, Northern California Real Estate Report, various issues. Figures are for January of 1975 and 1979 based on extrapolation of index numbers for October of 1974 and 1978 and April of 1975 and 1979.

SOURCE: Recht, Hausrath and Associates

Price increases could be related to other factors as well. For example, column 5 shows the number of jobs in each housing market for every one housing unit in 1975. San Francisco has the highest ratio of jobs to housing units. This would tend to put more upward pressure on prices in San Francisco than elsewhere. Thus, these pressures already existing in San Francisco might be another important factor in the rapid increase in San Francisco's housing prices in the late 1970s. This could especially be true if gasoline price increases and the increased attractiveness of center city living have influenced commuters to move into the City. Thus, the large number of people already employed in San Francisco--many of whom are non-residents--could be at least as great a source of demand for San Francisco housing as would new employees.

While job growth appears to have some impact on housing price increases, San Francisco housing prices have risen only slightly more than those in the remainder of the Bay Area. Over the four years, San Francisco prices rose about 21% per year compared to 18% elsewhere. Even though these other areas maintained a much greater balance between job growth and housing growth, the rate at which their housing prices increased was only one-seventh less than the rate in San Francisco. Obviously, factors besides job growth are responsible for the majority of the increase in San Francisco and other Bay Area housing prices. These other factors include inflation throughout the economy, rising household incomes due to more women working, decreasing household sizes, changing lifestyles and preferences, the increasing attractiveness of real estate as an investment, the rising cost of construction financing, "no-growth" policies in some communities, the increasing scarcity of land in others, and many other factors. Not expanding the stock of housing in response to job growth, therefore, would probably not cause prices to rise much more than they otherwise would.

Though most workers who move into the City would occupy units vacated by other households, few of them would replace households that are forced out of their homes by the price and rent increases caused by job growth. If no new housing units are supplied, one household of existing residents would have to move out of San Francisco for each new worker household that moves in. Some of those who leave, though, would leave voluntarily. Many people move each year for a variety of reasons. Displacement would occur only when a household is forced to move outside of the City because it can no longer afford the housing it lives in. Households are displaced in that way as a result of rent increases caused by job growth as well as by other factors.

Thus, the number of households displaced from San Francisco as a result of job growth is not equal to the number of new jobholder households that move in. It excludes those households that voluntarily leave. It also excludes those households that would have been forced out anyway by the price increases that would have occurred even in the absence of job growth. It is only those households that are forced to move because of the extra amount by which housing prices rise as a result of job growth.

Another effect of price increases due to job growth is that some people in the future would be precluded from moving into San Francisco because they would not be able to afford to do so. In addition, current residents who rent could

find it more difficult to buy a home. These effects, together with displacement, are known as 'gentrification'.

It should be noted also, that supplying new housing that keeps prices lower than they otherwise would have been would probably increase the number of new jobholders who move into the City over the number who would have moved in otherwise. This is simply because, at the lower prices, there would be more buyers. This effect, however, was ignored in the estimation above of the number of new jobholders who would move into San Francisco. It is expected that the price difference would be too small to affect the estimated range.

The Price of New Units

If supplying new housing units is to prevent prices from rising, the new units should be available at prices affordable to the new jobholders who move into San Francisco. To understand why, assume all housing in San Francisco is available at one of two prices: $75,000 and $150,000. If all the jobholders who move into San Francisco can only afford a house priced around $75,000 and all new units supplied are priced around $150,000, prices are not likely to remain stable. Because the demand for lower priced units has increased but their supply has not changed, their price could be bid up above $75,000. As the same time, because the supply of higher priced units has increased but demand for them has not changed, their price could fall below $150,000. Overall, average San Francisco housing prices may not change, but only because increases among lower priced units are offset by declines among more expensive units. (It should be noted that while the addition of new units in the upper price ranges may not directly benefit those in the market for lower priced housing, it could relieve pressures for the conversion of rental units to condominiums.)

As a goal, therefore, the new units should be targeted to the purchasing ability of the new residents. Practically, it is difficult, however, to identify those who move. Data are available on both residents and non-residents employed in San Francisco, but not on employees who move into San Francisco. The estimates of purchasing ability for non-residents (in the Housing Impact section of the EIR) describe the "pool" of people from which the movers will come. Since those who move into the City might not be representative of all downtown worker households living outside San Francisco, this information may not accurately represent the prices of housing that will be demanded. A number of different possibilities exist.

It should be noted that the type and price of new units built could at least partly determine who moves in. Such effects of supply, however, cannot be easily detected for relatively small increments of office development.

The Effect on Other New Supply

Measures to increase the supply of housing will only achieve the desired results if the new housing built adds units that would not have otherwise been supplied. If, however, an office developer's plan to provide housing as a mitigation has the effect of providing housing that would have been built by a housing developer, the City's housing stock is not expanded over what it would have been without the mitigation. This could be the case unless the City

makes special provision to increase the number of units allowed to be built or to increase the profitability of development (by increasing densities, allowing housing to be built where it had not been previously permitted, etc.), or unless the housing that is built as a mitigation adds units at types or prices that would not have been provided otherwise (in which case the housing development is being subsidized.)

If housing developers could profitably supply all of the homes needed in San Francisco at a rate of return comparable to other development opportunities, they would do so. Since supply continues to lag behind demand, building enough housing to prevent prices from rising as a result of job growth would require changes in what is permitted to be developed and/or providing some housing at a lower than "competitive" return, or at a loss.

Regarding housing mitigation for job growth, the City could adopt policies that would enhance the feasibility of housing and increase the amount of new development permitted (increasing residential densities or rezoning for residential use, for example). If such policies are implemented, it could be left to housing developers to supply more housing. Mitigation could also be required of office building developers in the form of providing housing or providing funds for such purposes. If the result of this type of mitigation alone is to provide housing that would not have been otherwise provided, the additional housing would have to be subsidized by the buyers of other new housing, by the office building developer, and/or by the tenants in the office space. Most directly, office rents would probably be higher to cover the additional cost of housing.

FISCAL CONSIDERATIONS

Summary

There is a concern that new development downtown not impose a fiscal burden on the rest of the City. Unfortunately, the information needed for a precise calculation of the costs and revenues of a new office building or of the entire downtown area is not available. However, an analysis based on available data can yield some conclusions about how costs and revenues of a new building differ from those of an existing building and what impact that difference might have on the City's finances.

In determining whether new office development will improve the City's fiscal situation, the relevant question to ask is the following: at tax rates, fee schedules, and a level of City services consistent with a City-wide balanced budget, will <u>new</u> buildings impose costs in excess of the revenues they generate?

This is the relevant question for two reasons:

1. The revenues and costs attributable to a new building will not be the same as those attributable to existing buildings, so new development cannot be judged by the fiscal contribution of the existing downtown. Under Proposition 13, a new building will generate revenues that cover its costs better than existing buildings generate revenues to cover their costs.

This is primarily because Proposition 13 allows new buildings to be assessed at a higher value for property tax purposes than existing buildings.

2. The fiscal impact of new development must not be analyzed at pre-Proposition 13 service levels and post-Proposition 13 revenues. To restore long-term fiscal balance in the City, revenue increases, service cuts, or both will be necessary. New development must be evaluated by its fiscal contribution within that context. In that regard, new buildings that cover their costs better than existing buildings will reduce the severity of the revenue increases or service cuts needed to restore fiscal balance.

Within the question posed in this way, available data suggest the conclusion that new downtown office development is fiscally beneficial to the City. However, data limitations--particularly in the crucial case of the Muni--make this only a tentative conclusion.

If new development does have a beneficial fiscal impact, however, the benefits may be only temporary. Over the long-term, new development is fiscally more beneficial than no new development as long as new development continues. It eventually becomes less beneficial (or ceases to be beneficial) if, at some point, the construction of new buildings is halted. This long-term effect is due to Proposition 13, which prevents property tax revenues from growing as fast as the cost of government services.

The Difficulties of Assigning Costs and Revenues

Deriving exact dollar amounts of the costs and revenues of downtown development is extremely difficult. The lack of adequate data is an initial problem. Even more important, however, is the lack of an accepted methodology for apportioning costs and revenues. Some of the disputed questions include:

1. If a store opens, should sales tax revenues be attributed to the store or to the residents who make the purchases?

2. Should downtown development pay for schools and welfare if the construction of a new office building does not increase school enrollment and the welfare caseload? If downtown is only responsible for supporting the costs it creates, the answer is no. If, on equity grounds, it is decided that new development should share existing costs with everyone else, the answer is yes.

3. If Muni ridership increases because a building is constructed, should the costs be allocated to the building or to the residents who are riding the buses? Most EIR's (including this one) implicitly allocate all costs to the new building. It might be more reasonable to attribute at least some of these costs to residents.

4. If employment increases downtown because a building is constructed, that might put increased pressure on the housing market that would result in higher home prices and, therefore, higher property tax revenues. Should these revenues be credited to the office building or the homeowners?

5. If constructing one new office building does not make it necessary for the Fire Department to purchase a new fire engine, but once ten new buildings have been constructed a new engine is necessary, should that initial building have one-tenth of the cost allocated to it or should the tenth building bear all the costs?

The Questions Being Asked

These conceptual problems aside, there are two separate questions being asked about downtown development. One is whether existing downtown development generates revenues that exceed the costs it imposes on the City. The other is whether the revenues that a new building would generate will cover the added costs to the City that the building would create. This second approach is called "marginal analysis" and is concerned with how the City's fiscal situation would change with new construction. The question of whether existing downtown development pays for itself is academic. If we were to conclude definitely that it does not, should we then raze the entire downtown? Marginal analysis stresses the fact that if it is believed, for example, that downtown does not currently pay for itself, that does not necessarily imply that new development downtown will not pay for itself. What we should be concerned with is the change--whether new development makes the City's fiscal health better or worse.

Studies of the Revenues and Costs of Downtown

The most comprehensive study of downtown's contribution to the fiscal condition of San Francisco was published in 1975 by the San Francisco Planning and Urban Renewal Association (SPUR) in a report entitled "Impact of Intensive High-Rise Development on San Francisco." The report considered downtown's impact on revenue sources and expenditure categories accounting for approximately half of the San Francisco budget. It concluded that, in fiscal year 1973-74, downtown contributed slightly more revenue than it cost the City (excluding consideration of School District costs and revenues).

The SPUR conclusions were applied to the post-Proposition 13 revenue situation in a 1979 report done for the City Planning Department called "Downtown San Francisco Conservation and Development Planning Program, Phase I." Using the SPUR numbers but reducing property tax revenues by 70%, that report concluded that downtown now generates revenues equal to only 81% of its costs.

There are a number of problems with this estimate. First, the initial SPUR numbers were derived from an analysis of only selected expenditures and revenue sources. Even more critical, using 1973 numbers to describe the fiscal situation in 1979 assumes that new development downtown since 1973 has made the same fiscal contribution as existing development and that costs and revenues have grown proportionally over those years. These conclusions are doubtful. More than 10 million sq. ft. of office space have been added downtown since the SPUR study was completed. In addition, the fiscal operations of cities have changed enormously. The fiscal crisis of America's cities and the tax revolt are both phenomena that largely postdate the SPUR study.

An additional problem is that this analysis compares post-Proposition 13 revenues with pre-Proposition 13 costs. Such a comparison is invalid. Revenues and service costs must be compared at a service level consistent with a City-wide balanced budget. Judging downtown at pre-Proposition 13 costs and post-Proposition 13 revenues implicitly assumes that all service cuts or tax increases will be imposed in places other than downtown. Such an analysis, therefore, understates downtown's fiscal contributions if, in fact, downtown will suffer service cuts or generate increased revenues as a result of Proposition 13. San Francisco's revenue situation as a result of Proposition 13 is discussed below.

Despite these drawbacks, these modified SPUR numbers have been used to argue that new development downtown does not pay its way after Proposition 13. Such an argument assumes not only that the costs of new buildings will be the same as old* buildings' pre-Proposition 13 costs (as is implied by the modified SPUR numbers), but that new development's post-Proposition 13 revenue contributions are the same as existing development's. This is especially not true after Proposition 13, which allows higher assessed values for new buildings than for old.

Therefore, judging the fiscal impact of new development by comparing existing development's post-Proposition 13 revenues with its pre-Proposition 13 costs both understates the revenues and overstates the costs of new development.

Unfortunately, there is no definitive study that shows either whether downtown currently pays for itself, or whether new development will pay for itself. This appendix will provide a framework for analyzing, in the absence of hard numbers describing the fiscal impact of downtown development, how new development downtown in a post-Proposition 13 environment is likely to change the City's fiscal health from what it would be without new development.

Post-Proposition 13 Revenues/10/

Proposition 13 reduced the property tax rate and rolled back property assessments. In 1977-78, for each $100 in assessed value, the City received $6.54 in property tax revenues, after subtracting the amount that would be necessary to service the City's debt. (These numbers, as well as all others in this section, are for the City and County of San Francisco only and exclude the School District and Community College District.) In 1978-79, the first year of Proposition 13, the City's non-bond tax rate dropped to $2.56. If the state bailout money received that year were considered property tax revenue, the City received $4.03 in property tax revenues and bailout funds for each $100 in assessed value. That represented a 38% drop from the year before. In 1977-78, property taxes accounted for 32% of the City's general revenues. In 1978-79, they accounted for only 14%, and bailout funds for an additional 8%. As a result of Proposition 13, the City's total general revenues in 1978-79 were 12% less than they would have been had the non-bond property tax rate been the same as it had been the year before. This estimate actually

*The term "old building" in this appendix refers to an average building in the existing downtown. Its assessed value for property tax purposes is less than what it would be if it were based on the building's market value.

understates the revenue loss since it accounts only for the effect of a decreased tax rate but not the rollback in assessed value.

- Revenues dropped even further in 1979-80. Under Assembly Bill 8, passed in July 1979, the state ended bailout assistance to local governments (except for certain health and welfare functions). To compensate, local governments were given a larger share of the $4.00 tax rate and school districts' shares were reduced. The state, in turn, increased bailouts to the schools.

- As a result of Assembly Bill 8, 1979-80 non-bond tax rate for the City and County of San Francisco is $3.60 per $100 of assessed value. This is an 11% reduction from the City's revenues in 1978-79 of $4.03 per $100 of assessed value.

Under these circumstances, it seems that local government will soon have to cut back the level of services or increase other revenue sources substantially. Proposition 13 and Assembly Bill 8 would have a combined impact of reducing the City's general revenues substantially in just three years. New development, therefore, should not be judged by its ability to pay for a pre-Proposition 13 level of services. It should be judged by its service demands and fiscal contributions after revenues and service levels have been adjusted to produce long-term post-Proposition 13 fiscal balance. Initial steps in that direction have been proposed in San Francisco, but the analysis in this EIR incorporates only the Muni fare increase which is, so far, the only major revenue change to be implemented that would affect this EIR's estimates.

Cost and Revenue Increases Due to New Development

In order to understand how new development changes the City's fiscal health, it is necessary to see how new development differs from old. In particular, it is necessary to see how revenues from new development compare to revenues from old development and how costs of new development compare to costs of old development for a given level of services. Both revenues and costs of a building can be examined in two ways: as total numbers and as numbers per a standard measure of service demand that will permit comparison of one building to another. A useful standard is square feet.*

New office buildings probably generate more revenue per sq. ft. than old office buildings. This is partly due to the higher rents usually obtainable in new buildings, which results in larger revenues from the gross receipts tax and a higher assessed value based on a higher market value. The differential is widened by Proposition 13 which keeps old buildings' assessments below what they would be if based on market value. New office buildings are assessed for property tax purposes at one quarter of market value, while old buildings' assessments are less than that. Proposition 13 limits assessment increases to

*This is, of course, a rough measure. A rigorous quantitative analysis might require developing a measure incorporating both space and employment accounting for different service demands at different locations. Employees in a downtown office building, for example, would be more likely to ride Muni than would employees in the San Francisco Executive Park near Candlestick Park.

2% per year on property that does not change ownership. The market value of office buildings, however, has risen much faster in recent years. A building that has not been sold for five years, for example, will be assessed this year at only about 8% above its assessment in 1975-76. Gross receipts tax revenues paid by the owner of the building will also be greater per sq. ft. in the new building than the old since rents in the new building will be higher.

Other major revenues from new buildings will probably be similar to those from old buildings. Because new buildings and old buildings will probably have roughly the same number of employees per sq. ft., and employees with similar incomes, both the payroll tax and sales tax revenues will probably be similar. Because new buildings are probably more energy-efficient than old ones, the utility users tax revenues fom new buildings might be smaller than in old buildings, but the difference will be an insignificant part of total revenues.

It is far more difficult to generalize about how costs (for a given level of services) will differ between new and old buildings. Most evidence seems to indicate, however, that overall costs per sq. ft. of new building space are lower than old building space (e.g. new buildings incorporate life safety and security systems not generally found in older builidings). This analysis will, therefore, adopt a safe, worst-case assumption that per sq. ft. service costs are the same in new buildings and old.

There are two reasons for this conclusion. First, most studies of direct service costs conclude that per sq. ft. costs decrease in new buildings from what they are in existing buildings. The major exception could be public transportation costs. The second reason is that new buildings generate costs for fewer city agencies than do existing buildings.

The SPUR study, although it is now out-of-date, still provides the best indication of how costs increase with new development. In fact, development downtown since publication of the SPUR report has followed one of the scenarios examined in the report. The report considered the increase in costs resulting from an additional 30 million sq. ft. of office space added downtown between 1974 and 1990. By 1980, approximately one-third of the way through that time period, 10 million sq. ft. of office space has been added. So the SPUR numbers can give some idea of the cost impact of adding 20 million sq. ft. of office space downtown by 1990.*

In examining government services provided directly to office buildings, SPUR found that costs would grow more slowly than office space. If office space

*This is a different use of SPUR figures than was criticized earlier in this appendix. The 1979 report on downtown development used SPUR's estimates of total costs and revenues due to downtown in 1973 to describe total costs and revenues in 1979. Because of change over those years, this is not a valid use of the numbers. The numbers used in this section are a different series of SPUR numbers: estimates of how costs will change downtown as a result of growth downtown. This is the proper use of these numbers. The validity of conclusions based on them, however, depends on the accuracy of SPUR's estimates.

grew 60%, SPUR estimated that police costs would grow 28% and fire costs would grow 1%./11/ The report also estimated that the Muni deficit would grow more slowly than office space, though it acknowledged that increased costs to Muni due to congestion were not considered./12/ As is discussed below, it is possible that transit costs per ride will increase with new downtown development.

To understand why new buildings generate costs for fewer City agencies, it is necessary to discuss one concept of how costs should be allocated. The costs that a building imposes on a community are not limited to the direct costs of facilitating business in that building--police, fire, etc. To the extent, for example, that a new office building spurs residential development, the costs of government services for residential activity--schools, for example--are relevant. If construction of the building will not lead to increased school enrollments, however, its construction will not increase school costs.

This is merely restating that new development's fiscal impact should be judged by how it changes costs and revenues--for example, how it changes the costs of the school district and the revenues of the school district from what they would have been without the new development.

New office development in San Francisco creates little or no demand for certain government services. Schools and social services are good examples. There is little room in San Francisco for additional housing. Thus, new office development will not substantially increase enrollments in San Francisco's schools. Likewise, social services are provided almost entirely to residents. New development will not increase the number of residents and it might even reduce the number of low-income residents if the growth in job opportunities it brings results in the employment of a greater proportion of San Francisco residents.

Nonetheless, downtown development will generate revenues for the schools and for social services. Revenues going to the schools will enable the quality of the schools to increase. It is less clear how revenues normally allocated to social services will be used. Of general fund revenues not allocated for a particular use by the supplier of the revenues, approximately 5% are allocated to social services in the 1979-80 budget./13/ Thus, 5% of the general fund revenues a building generates could go to increase the level of social services. Or, if City officials decide that social service expenditures should not increase since social service demands have not increased, the 5% could be used to increase expenditures on services that more directly serve downtown. Other government services partly supported by the general fund for which new office development generates little additional demand are health, recreation, and cultural services.

Thus, it appears that the costs per sq. ft. of providing direct services to new office buildings are no higher than old office buildings and that more of a new building's revenues can be devoted to supporting these direct services. Because revenues per sq. ft. will be higher in new buildings than old, it seems reasonable to assume that, for a given service level and on a per sq. ft. basis, revenues from a new development will cover its costs better than revenues from existing buildings cover the costs of servicing the existing downtown. In saying this, however, no assumption is being made about

whether revenues exceed costs (the buildings "pay their own way") for either existing or new development.

- There is one way in which new development generates new revenues but no new costs and so reduces tax rates for all other taxpayers. General obligation bonded indebtedness of the City, the School District and BART is paid off through property tax revenues raised through a tax rate in addition to the Proposition 13 $4.00 rate. The tax rate is computed each year by dividing the debt payments due in that year by the total assessed value. That tax rate for San Francisco taxpayers in 1980-81 is $0.92 per $100 in assessed value. Additional downtown development, by raising assessed value but not affecting bonded indebtedness, would lower the tax rate for all other San Francisco taxpayers.

Fiscal Impact of Downtown Development on Muni

New development's fiscal impact on Muni requires special attention, as Muni's costs could rise faster than revenues with new development.

The City's general fund provides a subsidy to Muni's operating fund. As discussed in the text, 1980-81 revenue and cost estimates indicate that this subsidy is equal to about $0.29 per rider who travels with a Fast Pass. This is based on an average operating costs per ride of $0.87. This figure, however, is not a good measure of the costs of providing additional Muni service downtown. First, it excludes capital costs. Second, it implies two assumptions that are probably not valid:

1. That the average costs of providing service to the average Muni rider and to people who now take Muni to and from work downtown are the same; and

2. That the average costs of providing service to existing workers downtown and to new workers downtown are the same.

The first assumption could be invalid for one of three reasons:

1. Rush hour vehicles are filled to greater capacity than off-peak vehicles. This could make the cost of providing service to downtown workers less than the average.

2. Rush hour vehicles operate at slower speeds. This would have the opposite effect.

3. Rush hour ridership necessitates having extra vehicles that are only in use part of the day. Capital costs per ride are, therefore, higher for the excess of peak hour ridership over average ridership than for average ridership. This would also make service for downtown workers costlier than average.

The second assumption, that costs for existing and new workers would be the same, could be invalid for one of two reasons:

1. Increased ridership increases congestion which slows down vehicles, thus making the average cost of providing service to all downtown workers rise.

2. Increased rush hour ridership without a corresponding increase in off-peak ridership would increase average capital costs per rush hour rider.*

Muni officials do not collect the data needed to quantify, along the lines outlined above, the way in which the cost of providing new service downtown differs from the average. The following points, however, are relevant:

1. A British study found rush hour transit service to be 1.5 to 4 times more costly than service for off-peak riders. The difference was due to the extra capital costs./14/

2. Muni could increase its capacity without purchasing new buses if it increased its maintenance operations./15/

3. Under current state and federal programs, the purchase of new vehicles for Muni is paid for entirely by state and federal aid. The federal Urban Mass Transit Act provides 80% of the purchase price and state legislation, SB 620, provides 20%./15/

4. The cost increases due to congestion and the purchase and maintenance of vehicles used only at rush hour could be partially mitigated if new firms downtown adopt flex-time scheduling.

5. New development downtown will slowly reduce the percentage of downtown office workers who are San Francisco residents (see previous section on residence patterns). Because San Franciscans are more likely to use Muni than non-residents, downtown development will tend to reduce the percentage of downtown workers who ride the Muni and therefore require a subsidy from the general fund. On the other hand, increased congestion might force people to abandon their cars and more intensively use public transit, including Muni.

*The rush hour/non-rush hour capital cost difference can be explained as follows. Assume that a bus can carry 50 people and that it costs $100 (unrealistic, of course, but a simple number to keep the example simple). At rush hour, 100 people take the bus. At off-hours, 50 people take the bus. One bus operates all day and carries 100 passengers (50 at rush hour and 50 at off-hours) for an average capital cost of $1.00 per passenger. The second bus is only needed at rush hour and only carries 50 passengers. Its cost is the same, though, so its average capital cost per passenger is $2.00. The average capital cost for all riders is $1.33: it is $1.00 per rider for the 100 riders on the first bus and $2.00 per rider for the 50 riders on the second bus. But for rush hour riders, the average capital costs are $1.50: for 50 of them (those on the first bus) it is $1.00 and for the other 50 (those on the second bus), it is $2.00. Therefore, the assumption that rush hour riders cost the Muni the same as the average rider may not be valid. Next, assume an additional 50 rush hour riders want to take the bus. A new bus must be purchased which will not operate except at rush hour. The average capital cost per rider for these new riders is therefore the same as those on the second bus: $2.00. This is more than the $1.50 average capital cost per rider for existing rush hour riders. So the second assumption, that existing and new rush hour riders cost Muni the same, may also be invalid.

6. The Transit Impact Development Fee, if enacted, would increase revenues to Muni for riders traveling to and from new office space by as much as about $1.00 from the average revenue for each Fast Pass rider (see Section IV.C., Employment, Housing and Fiscal Factors, p. 86).

In summary, it is possible that costs per new downtown rider are greater than costs per average rider or per existing downtown rider. This is primarily due to congestion and capital costs. It is impossible, however, with currently available data, to verify this or quantify the difference. The greater costs, however, would be reduced or become irrelevant in considering how downtown development increases Muni's reliance on general fund revenues, to the extent that:

1. Muni continues not to have to pay the capital cost of new vehicles;

2. Muni improves operational efficiency and maintenance;

3. The Transit Impact Development fee is enacted;

4. Muni implements additional energy conservation measures; or

5. Flex-time is broadly instituted.

<u>Impact of Downtown on City Finances</u>

One of two situations must be true: either downtown provides revenues at least adequate to cover its costs <u>or</u> downtown runs a deficit, balanced by a surplus from elsewhere in the City.

If existing downtown has a surplus, then <u>new</u> development will be unquestionably beneficial. Because a surplus downtown means that, on average, revenues exceed costs downtown, and evidence suggests that revenues cover costs better for new downtown development than for existing development, then revenues from new development will also exceed the costs of new development. Thus, new development will yield a surplus for the City--in fact, an even greater surplus per sq. ft. than existing development.

It is more difficult to assess the impact of new office development if downtown is running the deficit. Most of the rest of this appendix will analyze downtown development assuming this to be the case, but it should be kept in mind that <u>no</u> conclusion has been made about which sector is actually running the deficit. In fact, at pre-Proposition 13 service levels, both could be running a deficit. Once service levels are cut and/or revenues are raised to bring the City into fiscal balance, however, only one sector will run a deficit--unless, by some chance, each sector is in balance.

If downtown is in deficit, new development could be beneficial to the City under two conditions: (1) if new development reduces the total deficit of downtown, or (2) if new development reduces the deficit per sq. ft. <u>and</u> the City takes steps to reduce the deficit either by raising additional revenues from downtown or imposing service cuts on downtown. If that is done, new development will mean that required revenue increases or service cuts will be less than without the new development.

These two conditions are discussed in the sections which follow.

Condition 1: Reducing Downtown's Deficit

If downtown is running the deficit, new downtown development could either generate revenues in excess of costs or less than costs. If revenues exceed costs, then the new development will generate a surplus and so reduce the deficit even if the building itself does not generate revenues in excess of costs. This could be true because new construction often entails demolition of old office buildings. If the buildings destroyed ran a larger deficit than the new building, the net effect would be to reduce the deficit. A numerical example demonstrates this:

	Old Building	New Building
Revenues/Sq. Ft.	$ 1.00	$ 1.25
Costs/Sq. Ft.	$ 1.30	$ 1.30
Revenues - Costs/Sq. Ft.	$ -.30	$ -.05
Square Feet	100,000	400,000
Revenues	$100,000.00	$500,000.00
Costs	$130,000.00	$520,000.00
Revenues / Costs	.77	.96
Revenues - Costs (Deficit)	$-30,000.00	$-20,000.00

The new building runs a deficit, but a smaller deficit than the old building. The change in revenues is:

Change in Revenues = New Building Revenues Minus Old Building Revenues

= $500,000 - $100,000

= $400,000 Increase in Revenues

and the Change in Costs = New Building Costs Minus Old Building Costs

= $520,000 - $130,000
= $390,000 Increase in Costs

so the change in revenues (marginal revenues) minus the change in costs (marginal costs) is

Marginal Revenues-Marginal Costs = $400,000 - $390,000
= $ 10,000.

Therefore, even though the new building generates a deficit, tearing down the old building and constructing the new reduces the deficit downtown by $10,000.

Though a new building might initially generate a surplus because its property tax revenues per sq. ft. will be higher than existing buildings, the surplus

may eventually disappear as property tax revenues grow only 2% per year while costs grow faster. Even a new building that, on its own, initially runs a surplus and replaces a building that was running a deficit, could in later years run a larger deficit than the old building would have. This can be demostrated with another example. In this case, the old building is the same one as in the previous example, but the new building is one that initially generates a surplus.

	Old Building	New Building
Revenues	$ 100,000	$ 600,000
Costs	$ 125,000	$ 500,000
Revenues - Costs	$ -25,000	$ 100,000

If revenues increase 5% per year (the property tax, rising 2% per year, is only one revenue source) but costs rise 10% per year,* the new building will soon run a larger deficit than the old building would have.

Year	Marginal Revenues Less Costs Old Building	Marginal New Building	Revenues Less Costs	Cumulative Fiscal Impact
1	$ - 25,000	$ 100,000	$ 125,000	$ 125,000
2	- 35,000	62,000	97,500	222,500
3	- 47,210	19,240	66,450	288,950
4	- 60,254	- 28,775	31,479	320,429
5	- 74,770	- 82,591	- 7,821	312,608
6	- 90,906	- 142,807	- 50,901	261,452
7	-108,829	- 210,084	- 101,255	160,452
8	- 128,722	- 285,148	- 156,426	4,026
9	- 150,783	- 368,799	- 218,016	- 213,990

In this example, the new building begins to run a deficit in the fourth year and, by the fifth year, its deficit is greater than the old building's would have been. Because it had generated a surplus for many years, though, the new building does not begin to reduce the City's total revenues from what they would have been until the ninth year when four years of surpluses are more than wiped out by five years of deficits.**

*This is approximately what would happen under the assumptions of this report if costs rise at the rate of inflation.

**Even assuming a 7% discount rate to account for the time value of money, the cumulative impact would become negative in the ninth year: - $34,176.

New development in this example eventually generates a fiscal deficit because, though the building's revenues always cover its costs better than the old building's does, the new building is larger and so the dollar amount by which total costs and revenues differ grows faster.

This situation seems to indicate that all new development must eventually become a fiscal drain. If this conclusion were accurate, it would apply equally to residential development and office development. It also seems to indicate that, since service costs always rise faster than revenues, new service cuts will be needed each year to keep the City's budget in balance. Such conclusions, however, are misleading.

To begin with, if the scenario outlined above were to occur, the ability of government to provide even the barest necessary services would eventually disappear. Clearly, if government costs grow faster than revenues year after year, voters will eventually decide to allow revenues to grow at the rate of costs when they do not want further service cuts.

In addition, the long-term effect of Proposition 13 will not be to keep revenues growing more slowly than they would have in the absence of Proposition 13. Instead, Proposition 13 will reduce revenues from what they would have been, but eventually allow them to increase at the market rate of growth.*

After Proposition 13, assessed value per sq. ft. will grow faster with new development than without. In addition, a policy of development is likely to make revenues cover costs better than they would have in the absence of development. The conclusion is consistent with the fact that an individual new building, as in the above example, will eventually generate a greater deficit than the building it replaces would have.

Before Proposition 13, property tax assessments could keep pace with real estate prices in the absence of new development. County Assessors merely had to periodically reassess properties at higher values. Since Proposition 13, however, new development or the sale of existing property is necessary to raise assessments. As office buildings are rarely sold, the only feasible way to increase property tax revenues per sq. ft. and increase total revenues more than total costs downtown is to allow new development.

This can also be demonstrated with an example. Assume that downtown consists of 20 office buildings, each of 10,000 sq. ft. and each assessed at 25% of market value. Costs per sq. ft. and revenues per sq. ft. are each $1.00.

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*A numerical example can help explain this. If property changes ownership on the average of every 15 years and real estate prices rise 10% each year, then assessed value under Proposition 13 will grow 10% each year beginning 15 years after the implementation of Proposition 13, but it will always be only 62% as large as it would have been without Proposition 13. It will rise 10% each year because, although fourteen-fifteenths of the property will only increase 2% in assessed value each year, the other fifteenth will grow far more than 10% to catch up with 15 years of market price increases. On the average, then, total assessed value will grow 10%.

(For the sake of simplicity, all revenues are assumed to come from the property tax.) Each year, revenues per sq. ft. will increase 2%, costs will increase 8%, and the market value of the office buildings will increase 10%. (Property values have, in fact, risen faster than government costs for a given level of services in recent years.) The fiscal impact of development can be demonstrated by comparing what would happen if there were no new development to what would happen if development were allowed. Allowing development means in this example that each year for 20 years one building is destroyed and replaced with a building of 20,000 sq. ft. that is assessed for property tax purposes at 25% of market value. Cost per sq. ft. in new buildings is assumed to be the same as in old buildings.

The first new building to be built will, after 20 years, generate revenues of \$320,000 and costs of \$1,346,000. Its deficit will be \$1,026,000. If the building had not been built, and the old building were left standing, its revenues 20 years later would have been \$149,000 and its costs \$673,000 for a deficit of \$524,000. The new building, 20 years later, would be generating twice as large a deficit as the old building would have been.

But, the new building was generating a surplus in its early years, and buildings built later in that 20-year period would still be generating a surplus in the twentieth year. Taking all buildings together, if there had been <u>no new development</u>, revenues in the twentieth year would have been \$2,972,000, costs would have been \$9,322,000, and the deficit would have been \$6,350,000, or \$3.18 per sq. ft. <u>With new development</u>, however, revenues in the twentieth year will be \$14,698,000, costs \$18,644,000, for a deficit of \$3,946,000, or \$.99 per sq. ft. In other words, new development decreased the deficit 38% from what it would have been without new development, and the deficit per sq. ft. was 69% less than it would have been.

These numbers, of course, are hypothetical. But they demonstrate that, even though costs rise faster than revenues, permitting new development after Proposition 13 does not necessarily increase the City's deficit downtown. It could even provide a surplus. No new development, however, is virtually certain to generate a larger and larger deficit each year.

The effect of Proposition 13, therefore, is to make new development more attractive rather than less attractive. New development is the only feasible way to reduce the deficit downtown from the revenue side (other than raising non-property taxes or fees). However, new development's beneficial impact ceases once development is halted. As long as costs grow faster than revenues without new development, additional development is necessary each year to keep revenues growing as fast as costs. When new development is halted, the more new development that had been permitted, the larger will be the eventual

deficit.* It is, therefore, important not to judge a building's fiscal impact separate from the context of the City's policy toward new development. One new building alone will provide only temporary fiscal benefits. A policy of on-going development, of which that one building is a part, will provide an on-going fiscal benefit.

Condition 2: New Buildings Can Reduce Service Cuts

If a new office building at the time it is built does not generate revenues sufficient to cover its costs, and if its deficit is larger than the one run by the building it replaced, the new building will increase downtown's deficit and place an added burden on residential taxpayers. But, the new building will still improve the City's fiscal situation _if_ steps are taken to bring downtown more into balance. Because the new building's revenues will cover its costs better than the old building's, the tax increases or service cuts needed to bring downtown into balance will be less with the new building than the old.

Again, consider a simple numerical example. Assume that downtown consists of one building of 10,000 sq. ft. whose revenues per sq. ft. fall $.20 short of its costs per sq. ft. The building's deficit per sq. ft. is $.20 and its total deficit is $2,000.

Now assume that another building of 10,000 sq. ft. is constructed. Its revenues cover its costs better than in the case of the old building, but it still runs a deficit of $.10 per sq. ft. Its total deficit is $1,000.

Thus, adding the new building increased the total downtonwn deficit from $2,000 to $3,000.

But, the deficit per sq. ft. has dropped to $.15 per sq. ft.

$$\text{Deficit/Sq. Ft.} = \frac{(.20)(10{,}000) + (.10)(10{,}000)}{10{,}000 + 10{,}000} = .15$$

Therefore, if services are to be cut to eliminate downtown's deficit, with only the old building the necessary cut would be $.20 per sq. ft., but with the new building, it is only $.15 per sq. ft. So a new building that runs a deficit, but a smaller one per sq. ft. than existing buildings, will widen

*A thorough analysis should, of course, include the impact of ownership turnovers. If turnover is frequent and market prices are rising faster than public service costs, property tax revenues could rise faster than costs even with no new development. For example, even with San Francisco's relatively fixed housing stock, the average assessed value of single-unit residences increased on the average of almost 9% per year in the first two years after Proposition 13 (computed from data supplied by San Francisco Assessor's Office). Infrequent turnover of non-residential property, however, makes it unlikely for turnover alone to increase property tax revenues from office buildings as much as costs rise.

downtown's deficit but will also make it easier to bring downtown into fiscal balance.*

Realistically, because of the difficulty of identifying and allocating costs and revenues, it is impossible to determine exact service cuts neded to bring downtown into balance. In addition, the goal may not be to bring downtown into exact balance, but to cut services in response to Propsition 13 as little as possible downtown but not increase downtown's burden on the rest of the City. New development that may not "pay its own way" at pre-Proposition 13 service levels may facilitate that goal.

In the above example, if it were decided that a $.12 per sq. ft. service cut were called for, the deficit with only the old building would drop to $800. With the new building, however, it would drop to $600. This is because the new building, though it generated a deficit before the service cut, generates a surplus after the cut.

Another way to look at this is that new buildings which have smaller per sq. ft. deficits than old buildings will probably increase the number of buildings that go from deficit to surplus as a result of a service cut.

Assume for example that there are five buildings downtown each generating revenues per sq. ft. as shown:

Building 1 - $1.00

-- Service Costs $.95

Building 2 - .90
Building 3 - .80
Building 4 - .70
Building 5 - .60

Service costs are $.95 per sq. ft. so that one building generates a surplus and four a deficit. If service costs are now cut to $.85, two buildings are in surplus and three in deficit.

Now consider what happens if a new building is built. Since it will do an above average job of covering its costs, assume that it generates revenues of $.90 per sq. ft. If service levels are not cut, the new building will worsen the situation by increasing the number of buildings in the deficit from four to five. But if the service cut is made, the new building will instead increase the number of buildings in surplus.

Proposition 4

Proposition 4, passed by California voters in November 1979, could prevent the City from spending revenues generated by new office development. It is not clear, however, that this will happen. It is equally probable that, even with office growth, revenues will grow more slowly than allowable spending.

*Though the analysis here is developed assuming service cuts are used to restore fiscal balance, the new building's effect would be the same if, instead, revenues were increased.

Proposition 4 limits the spending of each government unit to a base-year figure that is allowed to change only to reflect population and cost of living changes. Determining the likelihood that San Francisco will collect revenues in excess of what it can spend is complicated by uncertainties about the law's implementation. In mid-1980, the California Legislature was still undecided about how to determine base-year spending. It was also considering legislation that would allow San Francisco population for the purposes of Proposition 4 to be a regional figure rather than the resident population of the City alone. Adjusting San Francisco's spending limit according to changes in regional population would reduce the possibility that the City would collect revenues in excess of what it could spend.

Even without such a redefinition of population, however, City revenues will possibly grow more slowly than allowable spending and so permit the expenditure of revenues generated by new office development. This is primarily because a large share of San Francisco's existing property tax base is made up of non-residential property. Because ownership turnover is infrequent with these properties, revenues will probably grow at a slower rate than the cost of living due to Proposition 13's 2% limit on the growth of assessed value. However, in 1979-80, only about a quarter of General Fund revenues came from the property tax. And that proportion will probably decline in the future as other taxes are increased. Thus, if revenues from non-property tax sources rise faster than the Consumer Price Index, revenues from new office development might have to remain unspent under Proposition 4.

Changes Downtown with No New Development

Throughout this analysis new development has been posed against retaining downtown as it is. The same market forces that create the pressures for expansion downtown, however, would change downtown even if no new development were permitted. A few comments on what might happen are discussed below.

As discussed in the text, demand for office space in San Francisco has exceeded supply for many years and has driven up office rents. Banning new office development on a site, an area of the City, or the entire City will not eliminate that demand. If, therefore, development is prevented at one site downtown, the pressure for new development will probably appear somewhere else downtown.

If no new development is permitted downtown, two things would happen. Many users of office space would have to locate outside of the City or in other parts of the City. At the same time, office rents downtown would rise even faster than in the past as firms that want to locate downtown bid up rents for a fixed supply of space. The higher rents would probably have two effects:

1. As demand for space is satisfied only from existing space (rather than new construction) and as the rate of rent increases accelerates, tenants of low-rent space would be priced out of downtown faster than they have been in the past.

2. Firms would economize on their use of downtown space and so reserve it only for executive functions. This would accelerate the trend of companies shifting clerical and other non-professional functions out of

the City. As the total amount of employment that could be accommodated downtown would remain fixed and space were increasingly devoted to executive functions, non-professional employment downtown would decline.

Owners of old buildings might remodel them to make them more appealing to high-rent tenants. Property taxes would therefore, increase. With no new space, service costs would not increase, though congestion might worsen since high-paid professionals are the ones most likely to drive automobiles to work. On the other hand, Muni costs might decline.

Therefore, if extensive remodeling were to take place, it is possible that banning new downtown development would have a beneficial fiscal impact. Those benefits, however, would have to be weighed against the resulting tenant and employment changes downtown.

Downtown Development as a Fiscal Solution

There is a temptation to conclude from this analysis that new downtown development is desirable because it would alleviate the City's fiscal problems. While the analysis does suggest that continued downtown development could help relieve the City's fiscal plight, the analysis neither concludes that this makes development desirable nor that the City's fiscal problems are best solved by permitting new development. The non-fiscal consequences of new development downtown must be considered in evaluating the desirability of development. The City's fiscal problems might better be solved by changes in the tax system, new fees, or in the level of government services provided and the way they are provided.

Conclusion

Given a general methodology of assigning costs and revenues, assessment of the fiscal contribution of new downtown development must be undertaken by comparing how much the new development would increase the City's revenues to how much the new development would increase the City's costs at a service level consistent with a long-term City-wide balanced budget. Doing that, we may not be concerned with whether downtown currently pays for itself at either a pre-Proposition 13 or a post-Proposition 13 service level. Nor should we make the mistake of not taking into consideration the inevitable cut in services or increase in revenues that Proposition 13 will require.

This approach seems to indicate that, on balance, an on-going process of new development downtown would improve the City's fiscal situation. However, public transportation agencies might incur increased deficits, and revenues would have to be allocated to cover those deficits.

RETAIL USES AT THE PROJECT SITE IN SPRING 1980

California Pacific Building (105 Montgomery St.)
Sincerely Yours, 106 Sutter St. (gifts, cards)
India Bazaar, 104 Sutter St. (clothing, imports)
Financial Smoke Shop, 101 Montgomery St. (tobacco, sundries)
109-123 Montgomery St.
Mayon Coffee Shop

John Walker and Co., 111 Montgomery St. (liquor store)
McCafferey's Golf Shop, 117 Montgomery St. (sporting goods)
Botique Mimi (women's clothing)
Packard Camera (photographic equipment)
Jaques Roberts Mens Wear, 123 Montgomery St. (men's clothing)
Wilson Building (125-129 Montgomery St.)
Ken's Sandwiches, 125 Montgomery (sandwich shop)
Wooster Optical (optician)
133-137 Montgomery St.
The Clothes Bin (clothing)
Steil Building (141-145 Montgomery St,)
Monty's Bar and Grill, 145 Montgomery
Unnamed flower stall
25 Trinity St.
Domino Club (bar and restaurant)

NOTES - Appendix C

/1/ David Jones, Director, Downtown San Francisco Flextime Demonstration Project, telephone communication, February 5, 1980.

/2/ Even such a survey would not actually tell us the residence patterns of new workers. It would tell us the change in the number of San Francisco residents employed in San Francisco for a given change in employment in San Francisco. This would differ from the residency of new workers if--as can be expected--some people holding jobs at the time of the first survey do not have jobs at the time of the second survey. Consider the following example.

A survey is conducted at two different times. The first survey shows that there are 100 workers downtown and 40% of them (40 workers) are San Francisco residents. The second survey shows that there are 150 workers downtown and 36% of them (54 workers) are San Francisco residents. Thus, employment increases by 50 and employment of San Francisco residents increases by 14, so 28% of the increase in employment is accounted for by San Francisco residents.

But, this does not necessarily mean that 28% of the people who held jobs when the second survey was taken but did not hold them when the first survey was taken are San Francisco residents. Assume for example, that the net increase in employment between the two surveys is due to 25 people leaving their jobs and 75 new people taking jobs. Also assume that the residence patterns of those 25 who leave their jobs are identical to the 100 people in the first survey. In other words, 40%, or 10 of these workers are San Francisco residents:

40 Workers in First Survey - 10 Workers Leaving +
24 New Workers = 54 workers in Second Survey

But, 24 as a percentage of 75 is 32%, not 28%. Therefore, 28% of the increase in employment is accounted for by San Francisco residents, but 32% of the new workers downtown are San Francisco residents. Computing the share of net new employment that goes to San Francico residents by looking at the results of surveys taken at two different times, is therefore, likely to understate the

percentage of new employees who are San Francisco residents if San Francisco residents are underrepresented among new employees relative to existing employees. In other words, new employment opportunities alone are not responsible for the decreasing share of jobs in San Francisco held by San Francisco residents. Turnover within existing jobs, at a time when San Francisco's population is declining but the rest of the Bay Area's population is rising, also contributes to the trend.

/3/ ABAG, Projections 79, 1980; Rune Carlson, ABAG, telephone communication, March 28, and May 5, 1980.

/4/ U.S. Census Bureau, Selected Characteristics of Travel to Work in the San Francisco-Oakland SMSA, 1975. Series P-23, No. 88, July 1979.

/5/ Association of Bay Area Governments, Projections 79, 1980.

/6/ ABAG, Projections 79, 1980.

/7/ The determinants of the number of employed residents are the population and the percentage of the population that is employed. The 1980 version of Projections 79 revised ABAGs projection of San Francisco's population in 1990 up from 639,813 to 650,145. The ratio of employed residents to population (ER/P) for San Francisco was projected, in the 1979 version, to increase 10.9% between 1975 and 1990 and for the entire Bay Area it was projected to increase 11.6%. In the 1980 version, the ER/P ratio for the Bay Area is projected to increase 11.2% between 1975 and 1990. Thus, if the ER/P ratio for San Francisco changes as it does for the Bay Area, the 10.9% increase from the 1979 version would have to decline. Another reason it might decline is that the 1980 version revises downward the projection of employment growth in San Francisco. Applying the 1979 version's projection of the percentage change of the ratio of ER/P for San Francisco to the 1980 version's projection of San Francisco population in 1990, employed residents in 1990 would be 350,700. For the reasons cited above, this number might be a little high; a reasonable rough projection is therefore considered to be 350,000.

/8/ Unpublished ABAG Projections 79 data for ABAG 440 Zones 420, 421, 428, 429, and 430 (January 22, 1980). The area is bounded by Howard, Third, Geary, Powell and Pacific Sts., and The Embarcadero.

/9/ See Table 2, p. 35.

/10/ Information in this section, unless otherwise referenced, is from California State Controller, 1977-78 Annual Report of Financial Transactions Concerning Counties of California, p. 211; City and County of San Francisco, Annual Appropriation Ordinance Fiscal Year Ending June 30, 1980; and telephone and personal communications with Al Sekara, Jerry Smythe, and Bill O'Sullivan, San Francisco Controller's Office, various dates in March, April and May, 1980.

/11/ SPUR, pp. 201-202, 214, 221.

/12/ SPUR, pp. 300, 310.

/13/ City and County of San Francisco, Annual Appropriation Ordinance, Fiscal Year Ending June 30, 1980.

/14/ Richard L. Oram, "Peak-Period Supplements: The Contemporary Economics of Urban Bus Transport in the U.K. and U.S.A.," Progress in Planning, 12, pt. 2, 89-154, Cited in David W. Jones, Jr., Frances D. Harrison and Paul P. Jovanis, "Work Rescheduling and Traffic Relief: The Potential of Flex-Time," Public Affairs Report, Institute of Governmental Studies, University of California, Berkeley, February 1980.

/15/ L. H. Elliott, Chief Accountant, Muni, personal communication, April 22, 1980.

APPENDIX D: TRANSPORTATION, CIRCULATION AND PARKING

The freeways accessible from the project site are the San Francisco-Oakland Bay Bridge (Interstate 80) and the James Lick - Bayshore Freeway (U.S. 101). Ramps on Harrison and Bryant Streets at Fourth Street, about one-half mile south of the project site, provide direct access to those freeways. The Embarcadero Freeway (California 480) provides alternate access to and from the Bay Bridge and James Lick Freeway from ramps on Clay and Washington Sts. near Davis St., about one-half mile to the northeast of the project site, and from ramps on Main and Beale Sts. at Mission St., about one-half mile to the southeast of the project site. The Southern - Junipero Serra Freeway (Interstate 280) has ramps at Sixth and Brannan Sts. and an unpaired off-ramp at Fourth and Berry Sts., nearly one mile from the site.

The project site fronts on three local streets (Trinity, Sutter and Montgomery). Montgomery and Sutter are designated as transit arterial streets in the Transportation Plan for Downtown and Vicinity, a part of the Transportation Element of the Comprehensive Plan (San Francisco City Planning Commission, Resolution 6834, April 27, 1972). A transit arterial is defined as a route of major arterial transit lines. The plan defines major thoroughfares as crosstown thoroughfares whose primary function is to link districts within the City and to distribute traffic from and to the freeways; these are routes generally of citywide significance and of varying capacity depending on the travel demand for the specific direction and ajacent land uses. A transit preferential street is one where priority is given to transit vehicles over autos.

The project site is one block north of Market St., which is designated as a major thoroughfare in the Thoroughfares Plan of the Transportation Element of the Comprehensive Plan. Market St. is designated also as a transit preferential street in the Transit Preferential Streets Plan of the Transportation Element. Market St. carries several local electric trolley coach lines on the surface and will serve the Muni Metro light-rail-vehicle lines (LRV) in the subway beginning in 1980. The Market St. Subway also carries Bay Area Rapid Transit system (BART) lines from the East Bay, which terminate in Daly City.

Bush, Sutter, Kearny and Montgomery Sts. are all one-way streets,carrying Muni electric trolley coach and motor coach lines. Bush St. is one-way eastbound and carries three lanes of traffic with a fourth lane as a towaway zone from 7:00 - 9:00 a.m. and 4:00 - 6:00 p.m. Sutter St. is one-way westbound and carries four lanes of traffic between 4:00 and 6:00 p.m. weekdays and two lanes during all other hours. Kearny St. is one-way northbound, carrying five lanes of traffic during the morning and evening peak periods and four lanes during off-peak periods. Montgomery St. is a three-lane, one-way street, carrying traffic soutbound, with two tow-away lanes during peak hours.

The intersections of Bush and Kearny Sts., Bush and Montgomery Sts., Sutter and Kearny Sts., and Sutter and Montgomery Sts. are controlled by traffic signals. The signals operate on a pretimed basis, with green time allocations in proportion to peak and off-peak traffic volumes in the applicable directions. The intersections on Montgomery St. and Bush and a Sutter Sts.

are, in addition, part of a pedestrian "scramble" system. At those intersections, a portion of the green signal time is used only for pedestrian movements, thus reducing the green time available for vehicle movements.

METHODOLOGY USED IN TRAFFIC ANALYSIS

The traffic volume data shown in Table 12, p. 96, are derived from historical data for 1976 and 1978 obtained from the San Francisco Department of Public Works, Bureau of Traffic Engineering. Estimates of some 1980 traffic volumes are based on manual intersection counts on February 25, 27 and 28, 1980 and on the historical data for 1976 and 1978.

The capacity analysis of each intersection at which a turning movement count was made used the "critical lane" method. This method of capacity calculation is a summation of maximum conflicting approach lane volumes that gives the capacity of an intersection in vehicles per hour per lane. (This method is explained in detail in an article entitled "Intersection Capacity Measurement Through Critical Movement Summations: A Planning Tool," by McInerney, Henry B. and Stephen G. Peterson, January 1971, Traffic Engineering. This method is also explained in "Interim Materials on Highway Capacity," Transportation Research Circular No. 212, Transportation Research Board, January 1980.) A sample calculation is included in the supporting documentation on file with the Department of City Planning, Office of Environmental Review, 45 Hyde St. The maximum service volume for Level of Service E was assumed as intersection capacity. A service volume is the maximum number of vehicles that can pass an intersection during a specified time period in which operating conditions are maintained corresponding to the selected and specified Level of Service. Table D-1 gives definitions and volume/capacity ratios for each vehicular Level of Service. For each intersection analyzed, the existing peak-hour volume was computed and a volume-to-capacity (v/c) ratio was calculated by dividing the existing volume by the capacity at Level of Service E. Table D-2, p. 212, shows the lane capacities used in this analysis. Table D-3, p. 213, shows the pedestrian flow regimens used in the pedestrian impact analysis; Table D-4, p. 214, shows the travel distribution and modal split informaton used in the travel demand analysis.

TABLE D-1: VEHICULAR LEVELS OF SERVICE

Level of Service	Description	Volume/ Capacity* (v/c) Ratio
A	Level of Service A describes a condition of free flow, with low volumes and high speeds. Traffic density is low, with speeds controlled by driver desires, speed limits, and physical roadway conditions. There is little or no restriction in maneuverability due to the presence of other vehicles, and drivers can maintain their desired speeds with little or no delay.	0.60
B	Level of Service B is in the zone of stable flow, with operating speeds beginning to be restricted somewhat by traffic conditions. Drivers still have reasonable freedom to select their speed and lane of operation. Reductions in speed are not unreasonable, with a low probability of traffic flow being restricted. The lower limit (lowest speed, highest volume) of this level of service has been associated with service volumes used in the design of rural highways.	0.61-0.70
C	Level of Service C is still in the zone of stable flow, but speeds and maneuverability are more closely controlled by the higher volumes. Most of the drivers are restricted in their freedom to select their own speed, change lanes, or pass. A relatively satisfactory operating speed is still obtained, with service volumes perhaps suitable for urban design practice.	0.71-0.80
D	Level of Service D approaches unstable flow, with tolerable operating speeds being maintained though considerably affected by changes in operating conditions. Fluctuations in volume and temporary restrictions to flow may cause substantial drops in operating speeds. Drivers have little freedom to maneuver, and comfort and convenience are low, but conditions can be tolerated for short periods of time.	0.81-0.90
E	Level of Service E cannot be described by speed alone, but represents operations at even lower operating speeds than in Level D, with volumes at or near the capacity of the highway. Flow is unstable, and there may be stoppages of momentary duration.	0.90-1.00
F	Level of Service F describes forced flow operation at low speeds, where volumes are below capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time because of downstream congestion. In the extreme, both speed and volume can drop to zero.	1.00 +

*Capacity is defined as Level of Service E.
SOURCE: Highway Research Board, 1965, Highway Capacity Manual, Special Report 87.

TABLE D-2: VEHICULAR LEVEL OF SERVICE GUIDELINES FOR VARIOUS PEDESTRIAN VOLUME LEVELS

Pedestrian Volume Level	Pedestrians Per Hour (One Sidewalk)		Level of Service E Maximum Lane Volume (Vehicles Per Hour)
	TJKM	SFDPW*	
Light	100	--	1500
Moderate	100-200	300	1380
Moderately High	200-500	300-600	1150
Very high	500	600	920

*San Francisco Department of Public Works levels are from a DPW worksheet, "Traffic Signal Priority Calculations, Pedestrian Volume Ranges."

SOURCE: TJKM, Tranportation Consultants

METHODOLOGY USED IN CUMULATIVE TRAFFIC AND PARKING IMPACT ANALYSIS

The buildings which were elements of the cumulative traffic and parking analyses are in or near the Financial District and are listed below by their EIR file number and name:

74.140	Howard and Main Sts. (Northeast corner)
74.170	Bank of Tokyo of California (California First Bank)
74.244	333 Market St.
74.253	444 Market St.
74.322	595 Market St.
75.60	505 Sansome St.
76.162	180 Montgomery St.
76.263	Golden Gate Plaza Phase III
76.434	601 Montgomery St. (Negative declaration)
77.98	333 Market St. addendum
77.220	Yerba Buena Center (Convention Center only)
78.27	101 California St.
78.61	Pacific Gateway (Administrative Draft)
78.207	Federal Reserve Bank
78.298	Crocker Bank Northern California Headquarters
78.334	One Sansome St.
78.413	150 Spear (101 Mission St.)
79.57	DAON
79.169	Pacific Lumber Building
79.178	456 Montgomery St.

TABLE D-3: PEDESTRIAN FLOW REGIMEN

Flow Regime	Walking Speed Choice	Conflicts	Average Flow Rate (P/F/M)*
Open	Free Selection	None	-0.5
Unimpeded	Some Selection	Minor	0.5-2
Impeded	Some Selection	High Indirect Interaction	2-6
Constrained	Some Restriction	Multiple	6-10
Crowded	Restricted	High Probability	10-14
Congested	All Reduced	Frequent	14-18
Jammed	Shuffle Only	Unavoidable	**

*P/F/M = Pedestrians per foot of sidewalk width per minute.
**For Jammed Flow, the (attempted) flow rate degrades to zero at complete breakdown.

SOURCE: Pushkarev, Boris and Jeffry M. Zupan, Urban Space for Pedestrians. Cambridge, MASS., MIT Press, 1975.

The locations of the above projects are shown in Figure D-1, p. 215, as is the study-area boundary for the cumulative traffic and parking analysis.

As none of the above buildings was in operation in 1976, the base year used for the cumulative analysis was 1976. The 1976 base traffic volumes were expanded to 1983 base traffic volumes by an adjusted growth factor of 1.1% per year used in the preceding subsections dealing with the direct effects of the proposed project.* The latter reflects the highest growth in total office space in the downtown area, whereas the year rather than the 1.8% per year used in th preceding subsections dealing cumulative analysis allocates

*The 1.8% estimate was assumed to be based on the average annual increase in office space which occurred during the San Francisco Department of Public Works Downtown Parking and Traffic Survey period of 1965 to 1970. According to a summary table compiled by the Department of City Planning, the annual average increase was 1.7 million sq. ft. per year. To calculate the new growth factor, the annual average increase in gross sq. ft. of office space, exclusive of the buildings to be considered in the cumulative analysis, was determined. This increase was 1.04 million sq. ft. per year, resulting in an adjusted growth factor of 1.1% (i.e. 1.7 msf/yr. / 1.8% = 1.04 msf/yr / 1.1%).

TABLE D-4: PROJECTED TRAVEL DISTRIBUTION AND MODAL SPLIT FOR THE PROPOSED PROJECT

Geographic Area	Work Travel Distribution	Work Travel Modal Split		Non-Work Travel Distribution	Non-Work Travel Modal Split	
San Francisco						
Downtown/Northeast (East of Van Ness, North of Market St. to the Embarcadero and South of Market to 101)	7%	Auto	9%	23%	Auto	40%
		Muni	61%		Muni	50%
		BART	1%		Walk	10%
		Walk	29%			
Northwest (Richmond, Marina and Western Addition)	15%	Auto	31%	21%	Auto	55%
		Muni	69%		Unit	45%
Southwest (Sunset, Parkside, Ingleside, Excelsior, Twin Peaks, and Upper Market)	13%	Auto	29%	15%	Auto	55%
		Muni	62%		Muni	36%
		BART	9%		BART	9%
Southeast (Potrero Hill, Bayview, Hunters Point, East and South of 101	5%	Auto	26%	16%	Auto	60%
		Muni	52%		Muni	40%
		BART	22%			
Peninsula (San Mateo and Santa Clara Counties)	18%	Auto	44%	12%	Auto	80%
		Muni	3%		SamTrans	3%
		BART	19%		SPRR	17%
		SamTrans	7%			
		SPRR	27%			
East Bay (Alameda and Contra Costa Counties)	30%	Auto	33%	11%	Auto	85%
		A-C Transit	30%		A-C Transit	4%
		BART	37%		BART	11%
North Bay (Marin and Sonoma Counties)	12%	Auto	58%	2%	Auto	73%
		GGTBus	35%		GGTBus	19%
		GGTFerry	7%		GGTFerry	8%

SOURCE: TJKM, Transportation Consultants

LEGEND

- Study Area Boundary
- Project Included in Cumulative Impact Analysis (In EE 77.220 only the George R. Moscone Convention Center, see p. for names of projects)

FIGURE D-1: PROJECTS INCLUDED IN CUMULATIVE TRAFFIC AND PARKING ANALYSES

SOURCE: TJKM, Transportation Consultants

some of the future growth to the specific projects listed above. Information on the amount of traffic generated by each "cumulative" project that would affect the streets in the Financial District was derived from the EIR or special traffic report on that project. The cumulative traffic from the analyzed projects was added to the 1983 base traffic. Finally, the projected traffic volumes generated by the proposed project were added to the sum of the 1983 base and cumulative traffic volumes. A similar analysis was conducted to determine cumulative parking impacts. That is, the parking demand for each of the projects considered in the cumulative analysis was determined, as was the loss of gain of parking space in the survey area from the 1980 condition. Some of the buildings considered are already constructed thus making the parking analysis overly conservative.

METHODOLOGY USED IN TRANSIT ANALYSIS

Afternoon peak-hour riderships, shown in Table 15, p. 100, were projected from 1980 to 1983 base levels by use of a growth factor for each transit agency. The projections were based on information gathered from each agency. For SamTrans and Southern Pacific Railroad (SPRR), SamTrans demand projections were used. Mr. L. Stueck of SamTrans supplied the demand projections for average daily and total yearly patronage for the years from 1978 to 1985 for the block of routes that include the mainline routes. A SamTrans projection of SPRR ridership from San Mateo County was also supplied. The percentage increases per year for SamTrans and SPRR were calculated from these data. For Golden Gate Transit, the system-wide percent per year increase stated on Page 4-1 of the "Final EIR on Proposed Toll and Fare Increases" (dated July 1978) was used. For BART and A-C Transit the daily ridership for years 1974 through April 1978 was used to project a growth trend. The patronage data were taken from "BART Impact Project - Traffic Survey Series" A-43 to A-50 (October 1974 to April 1978). A total percent increase from 1980 to 1983 was calculated for A-C and BART separately. For Muni, the system-wide increases projected by the P-O-M study (Wilbur Smith and Associates, 1975) were compared to the 1975 data to develop a percent per year increase. The growth factors thus derived for the period 1980-1983 were 6.1% for San Francisco Muni, 15.2% for BART (both transbay and westbay), 0 for A-C Transit, 19.3% for SamTrans, 17.9% for Southern Pacific, 23.9% for Golden Gate Transit (Motor and Ferry), and 23.9% for Harbor Carrier. Worksheets showing the derivations of these percentages are available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde St., San Francisco, and are hereby incorporated by reference into this report.

These percentages were applied to the 1980 riderships shown in Table D-5 to obtain the 1983 base riderships shown in Table 15, p. 100. The projected increases in riderships due to the project were then added to the base riderships to obtain the 1983 Base + Project riderships also shown in Table 15.

TABLE D-5: PROJECTED PEAK-HOUR TRANSIT RIDERSHIPS AND CAPACITIES IN 1980
(Selected Routes;* Peak Direction Only)

	Riders	Vehicles	Capacity++ Seated	Capacity++ Total	% Occupancy Seated	% Occupancy Total	Peak
San Francisco Muni	20,110	304	14,680	22,700	137	89	p.m.
BART: Transbay	8,270	10**	6,700	10,040	123	82	p.m.
Westbay	6,200	9**	5,540	8,320	112	75	p.m.
A-C Transit	8,590	206	9,890	12,360	87	70	p.m.
SamTrans	880	15	800	980	111	90	p.m.
Southern Pacific RR	5,310	10***	11,000	11,000		48	p.m.
Golden Gate Transit							
Motor Coach	4,880	123	5,530	6,770	88	72	a.m.
Ferry	910	3	N.K.+	2,075	N.K.+	44	p.m.
Harbor Carriers, Inc.	510	2	N.K.+	700	N.K.+	72	p.m.

*MUNI: J, K, L, M, N, 1, 3, 4, 5, 6, 7, 8, 15, 21, 30, 30X, 31, 38, 38LT, 38AX, 38BX, 41, 42, 45, 55, 61, 66, 71, 72;
SamTrans: 7F, 7B, 5M, 7R;
A-C Transit: A, B, BX, C, CH/CB, E, EX, F, FSG/FX, G, H, K, KH, L, LX, N, NX, O, OX, R/RH, RD/RF/RCV, S, SW, V, W, Y.

**Number of cars: 10 cars on Concord lines; seven cars on Fremont line.

***Number of trains assuming 10 cars per train, to reflect available rolling stock.

+Not known.

++Capacity has been calculated based on the following per-coach capacities:

	Seated Passengers	Total Seated and Standing Passengers
MUNI: Streetcar	57	95
Trolley	50	75
Motor Coach	44	66
Cable Car	34	76
BART	72	108
A-C Transit	48	60
SamTrans	53	65
Southern Pacific	100/150	100/150
Golden Gate Transit Motor Coach	45	55
Sausalito Ferry	-	575
Larkspur Ferry	-	750
Harbor Carriers Tiburon Ferry	-	350

TABLE D-5 (Continued)

SOURCES: Publicly available data were supplied by the agencies and personnel indicated below:

Agency	Data	Personnel	Date
Muni	Schedule Checks (Various Weekdays; May 21, 1979; August 31, 1979; October 16, 1979; November 20, 1979; December 5, 1979; January 19, 16, 23 and 24, 1980; and March 18 and 19, 1980	A. Figone Schedule Coordinator	March 25, 1980
BART	Data Acquisition System; Representative Days November 1979 and May 1980	W. Belding Senior Economic Analyst	March 6, 1980
A-C Transit	"Traffic Survey Series A-50", Institute of Transportation Studies (April 1978)		April 1978
SamTrans	Report of Weekly Operation (February 6 to 21, 1980)	L. Stuek Supervisor of Program Development	March 25, 1980
Southern Pacific Railroad	Yearly Account, File Ap-191 (October 1979)	G. Pera Manager-Commuter Traffic	April 23, 1980
Golden Gate Transit	Monthly Reports February and March 1980	A. Zahradnik Transportation Planner	March 25, 1980
Harbor Carriers, Inc.	Daily Reports April 14, 1980	Dispatcher	April 23, 1980

METHODOLOGY USED IN CUMULATIVE TRANSIT ANALYSIS

The methodology used in the cumulative transit analysis was similar to that used in the cumulative traffic and parking analyses. The buildings which were elements of the cumulative transit analysis are in or near the Downtown Business District and are listed below by their Office of Environmental Review EIR file number and name:

74.71	State Comp Building
74.128	Bank of America Data Center II
74.140	180 Howard (and Main) St.
74.170	California First Bank
74.244	Parking Structure, Howard and Steuart Sts.
74.253	444 Market St.
74.322	595 Market St.
75.60	505 Sansome St.
76.162	180 Montgomery St.
76.263	Golden Gate Plaza Phase III
76.434	601 Montgomery St. (Negative declaration)
77.98	333 Market St.
74.224	333 Market St.
77.157	201 California St.
77.220	Yerba Buena Center (Convention Center only)
78.27	101 California St.
78.61	Pacific Gateway
78.207	Federal Reserve Bank
78.298	Crocker Bank Northern California Headquarters
78.334	One Sansome St.
78.413	150 Spear (101 Mission St.)
79.57	DAON
79.169	Pacific Lumber Building
79.178	456 Montgomery St.

This list includes future projects with which the proposed project would share cumulative impacts on transit riderships. This list includes some projects that would not affect traffic patterns in the study area, and therefore do not appear on the list of projects used in the cumulative traffic analysis.

In the cumulative transit analysis, an adjustment similar to the adjustment made for traffic growth (i.e. relating the growth in transit ridership to the projected office space increases) was made. The growth factors were then recalculated to reflect growth exclusive of the buildings listed above. In this case, the office space included in the cumulative projects was assumed to account for 87% of the total growth. The cumulative ridership from the listed projects was added to the 1983 base ridership thus determined, and the project ridership was added to the resulting totals.

The resulting ridership projections are shown in Table 21, p. 108. The reader will notice that the 1983 ridership projections, exclusive of the proposed project, shown in Table 21 differ from those shown in Table 15. This difference is a result of the application of the two differing methodologies

described above, and may be explained as shown in the following example for the San Francisco Muni:

The 1983 projected ridership of 21,340 shown in Table 15 is the result of multiplying the 1980 estimated ridership of 20,110 by 1.061, thus escalating the 1980 projection by the derived growth factor of 6.1% (20,110 x 1.061 = 21,340). The projected increase in base ridership is therefore 1,230 (21,340 - 20,110).

The projected ridership of 25,820 shown in Table 21 for the 1983 Base + Cumulative condition is the result of multiplying the estimated 1980 base ridership by 1.008 thus escalating the 1980 projection by 13% of the derived growth factor of 6.1% and adding the projected cumulative ridership. In this case, the 1980 base ridership equals the 1980 collected data less projected ridership from five buildings that have been completed prior to the data collection: EE 74.71, 74.128, 74.170, 74.322, and 76.162. Thus, the adjusted 1980 base ridership is 18,370. Multiplying by the growth factor (18,370 x 1.008) gives a 1983 projected base of 18,520. Addition of the cumulative ridership from the buildings listed above (7,300 + 18,520) gives 25,820. Thus, the difference between the two methods is 25,820 - 21,340 = 4,480.

The difference revealed in this example suggests that the use of historical growth trends to project future transit demand may understate actual future demand, given present known development plans for the downtown area.

Analysis of 1983 occupancy ratios shown in Table 15 and 21 included allowance for known capacity expansions, as discussed on p. 216.

APPENDIX E: AIR QUALITY IN SAN FRANCISCO

Meteorological characteristics such as wind patterns and thermal inversions determine the movement and dispersion of air pollutants. The prevailing wind directions in San Francisco are from the west and northwest. Wind frequencies and speeds are generally highest in the summer. Light-variable (calm) wind conditions occur approximately 25 percent of the time on an annual basis. A thermal inversion (an inverted vertical temperature structure of the atmosphere consisting of warm air above cool air) is a stable atmospheric condition that inhibits the upward dispersion of air pollutants and traps them in a layer near the ground. High-altitude subsidence inversions, associated with warm descending air in a high-pressure cell which may last for several days, occur most of the time in summer and fall. Low-altitude radiation inversions, caused by radiation of heat from the earth's surface into cold nighttime air and usually dissipating by noon, occur most of the time in winter.

Much of San Francisco is generally upwind of major pollutant sources such as industrial areas, airports, freeways and other urban activities. San Francisco is more a contributor to its own air quality problems (especially local pollutants such as carbon monoxide and particulate) and to those in other parts of the Bay Area (especially ozone, or oxidant, which is a regional pollutant formed by a series of photochemical reactions involving hydrocarbons and nitrogen oxides over a period of several hours), than a recipient of pollutants from other areas. When atmospheric stagnation occurs (as the result of light-variable wind conditions coupled with thermal inversions, most commonly in the fall and winter), the potential exists for the entire Bay Area Air Basin to experience high concentrations of pollutants. Thus, air quality is both a local and regional problem.

The BAAQMD monitoring station at 939 Ellis Street is located on the roof of the nine-story building. While measurements there, shown in Table E-1, indicate daily, seasonal, and annual meteorological and air quality trends, it is not clear how well the measurements represent conditions at street level near the station or elsewhere in the City.

TABLE E-1: SAN FRANCISCO AIR POLLUTANT SUMMARY, 1977-1979

STATION: 939 Ellis Street, San Francisco

POLLUTANT:	STANDARD	1977	1978	1979
OZONE (O_3) (Oxidant)				
1-hour concentration (ppm /a/)				
Highest hourly average	(0.08) 0.12/b,c/	0.05	0.11	0.08
Number of standard excesses		(0) 0	(4) 0	0
Expected Annual Excess/c/		0 3	0.3	0.0
CARBON MONOXIDE (CO)				
1-hour concentration (ppm)				
Highest hourly average	35/b/	16	17	20
Number of standard excesses		0	0	0
8-hour concentration (ppm)				
Highest 8-hour average	9/b/	8.9	9.4	13.8
Number of standard excesses		0	1	2
NITROGEN DIOXIDE (NO_2)				
1-hour concentration (ppm)				
Highest hourly average	0.25/d/	0.21	0.30	0.16
Number of standard excesses		0	4	0
SULFUR DIOXIDE (SO_2)				
24-hour concentration (ppm)				
Highest 24-hour average	0.05/d/	0.035	0.024	0.034
Number of standard excesses/e,f/		0	0	0
TOTAL SUSPENDED PARTICULATE (TSP)				
24-hour concentration (ug/m^3 /g/)				
Highest 24-hour average	100/d/	105	128	117
Number of standard excesses/f/		1	1	1
Annual concentration (ug/m^3)				
Annual Geometric Mean	60/d/	41	42	42
Annual standard excess		No	No	No

/a/ ppm: parts per million.
/b/ National standard, not to be exceeded more than once per year (except for annual standards which are not to be exceeded).
/c/ The national ozone standard was revised from 0.08 ppm to 0.12 ppm in January 1979. The number of excesses shown in parentheses is of the old 0.08 ppm standard in effect at the time. Expected Annual Excess is a three-year average of annual excesses of the new 0.12 ppm standard.
/d/ California standard, not to be equaled or exceeded.
/e/ The sulfur dioxide standard is considered to be exceeded only if there is a concurrent excess of the state ozone or suspended particulate standards at the same station. Otherwise, the national standard of 0.14 ppm applies.
/f/ Number of observed excess days (measurements taken once every six days).
/g/ ug/m^3: micrograms per cubic meter.
SOURCE: BAAQMD, 1977 - 1979, Contaminant and Weather Summaries.

APPENDIX F: FLOOR AREA CALCULATIONS

BASIC FLOOR AREA RATIO (FAR):

Lot Size: 60.1354 x 207 = 12,448.028 x 14		174,272.39 S.F.
Adjacent Lot: 60 x 68.75 x 14 = 57,750 / 2 =		28,875.00 S.F.
Basic Allowable Building Area		203,147.39 S.F.

BONUSES

1.	Rapit Transit	-0-	
2.	Bart Access: 750 - 85 = 665 x 50 = 33,250 33,250 (10% Max.)	17,427	
3.	Parking Access	-0-	
4.	Multiple Building Access:	10,000.000	
5.	Widened Sidewalk	22,242.607	
6.	Shortened Walking Distance: 170 x 40	6,800.000	
7.	Plaza	-0-	
8.	Side Setback:	7,577.060	
9.	Low Coverage	-0-	
10.	Observation Deck:	10,000.000	
		74,046.667	74,064.667
	Total F.A.R. Allowable		277,194.067 S.F.

BUILDING AREA

Ground Floor	8,622.66
Second Floor	10,097.36
3 - 13 = 10,242.8 x 11 =	112,670.80
14	9,331.75
15 - 24 = 10,242.8 x 10 =	102,428.00
25	9,331.75
26 - 27 = 10,091.5 x 2 =	20,183.00
28	4,528.00
Total Building	277,193.320

APPENDIX F-1: FLOOR AREA CALCULATIONS FOR ALTERNATIVE 2

Basic Allowable Floor Area:

Lot Size: 60.1354 x 207 = 12,448.028 x 14 =		174,272.39 S.F.
Adjacent Lot: 60 x 68.75 x 14 = 57.750 / 2 =		28,875 S.F.
Basic Allowable Building Area		203,147.39 S.F.
BONUSES		
1. Rapid Transit	-0-	
2. BART Access 750 - 85 = 665 x 50 =	17,427	
3. Parking Access	-0-	
4. Multiple Building Access	10,000	
5. Widened Sidewalk	18,768	
6. Shortened Walking Distance 200 x 40	8,000	
7. Plaza	-0-	
8. Side Setback	12,448	
9. Low Coverage	-0-	
10. Observation Deck	10,000	
	76,643	76,643
Total F.A.R. Allowable		279,790.39 S.F.
BUILDING		
Ground Floor	6,497	
2nd Floor - 34 = 7175 x 33 =	236,775	
	243,272	
Observation	-1,300	
Total Building	241,972	241,972
Existing Cal-Pacific Building	20,435	
Existing Steil Building	7,370	
	27,805	27,805
Total Alternative		269,777 S.F.

APPENDIX F-2: FLOOR AREA CALCULATIONS FOR ALTERNATIVE 2A

Basic Allowable Floor Area:

Lot Size: 60.1354 x 207 = 12,448.028 x 14 =		174,272.39 S.F.
Adjacent Lot: 60 x 68.75 x 14 = 57.750 / 2 =		28,875 S.F.
Basic Allowable Building Area		203,147.39 S.F.
BONUSES		
1. Rapid Transit	-0-	
2. BART Access 750 - 85 = 665 x 50 =	17,427	
3. Parking Access	-0-	
4. Multiple Building Access	10,000	
5. Widened Sidewalk	18,768	
6. Shortened Walking Distance 200 x 40	8,000	
7. Plaza	-0-	
8. Side Setback 34.5 x 60.1354 = 2074 x 6	12,448	
9. Low Coverage	-0-	
10. Observation Deck	10,000	
	76,643	76,643
Total F.A.R. Allowable		279,790.39 S.F.
BUILDING		
Ground Floor (including Steil Building)	8,508.5	
2nd Floor (including Steil Building)	10,778	
3 - 10 = 10,335.55 x 8 =	82,684	
11	10,317.55	
12 - 24 = 10,091.5 x 13 =	131,189.5	
25	8,512	
26 - 28 = 8,651.5 x 3 =	25,954.5	
	277,944.05	
Observation	-1,383	
Total Building	276,561.05	

APPENDIX F-3: FLOOR AREA CALCULATIONS FOR ALTERNATIVE 3

Basic Allowable Floor Area:

Lot Size: 60.1354 x 207 = 12,448.028 x 14 =		174,272.39 S.F.
Adjacent Lot: 60 x 68.75 x 14 = 57.750 / 2 =		28,875 S.F.
Basic Allowable Building Area		203,147.39 S.F.
BONUSES		
1. Rapid Transit	-0-	
2. BART Access 750 - 85 = 665 x 50 =	17,427	
3. Parking Access	-0-	
4. Multiple Building Access	10,000	
5. Widened Sidewalk 34,343 (15% max)	26,140	
6. Shortened Walking Distance 200 x 40	8,000	
7. Plaza	-0-	
8. Side Setback 37 x 60.1354 = 2225 x 6	13,350	
9. Low Coverage	-0-	
10. Observation Deck	10,000	
	84,917	84,917
Total F.A.R. Allowable		288,064.39 S.F.
BUILDING		
Ground Floor	8,508	
2nd Floor = 2 - 24 = 10,200 x 23 =	234,600	
25	9,480	
26	8,760	
27	8,040	
28 - 29	14,640	
	284,028	
Observation	-1,300	
Total Building	282,728	

APPENDIX F-4: FLOOR AREA CALCULATIONS FOR ALTERNATIVE 4

Basic Allowable Floor Area:

Lot Size: 60.1354 x 207 = 12,448.028 x 14 =		174,272.39 S.F.
Adjacent Lot: 60 x 68.75 x 14 = 57.750 / 2 =		28,875 S.F.
Basic Allowable Building Area		203,147.39 S.F.
BONUSES		
1. Rapid Transit	-0-	
2. BART Access 750 - 85 = 665 x 50 =	17,427	
3. Parking Access	-0-	
4. Multiple Building Access	10,000	
5. Widened Sidewalk	25,272	
6. Shortened Walking Distance 250 x 40	10,000	
7. Plaza	-0-	
8. Side Setback	-0-	
9. Low Coverage	-0-	
10. Observation Deck	10,000	
	72,699	72,699.00 S.F.
Total F.A.R. Allowable		275,846.39 S.F.
BUILDING		
Ground Floor	7,532	
2nd Floor	10,159	
3 - 10 = (10,265 x 8) =	82,120	
11 - 26 = (10,241 x 16) =	163,856	
Retained Cal-Pacific Floor Area 2nd Floor	760	
Floors 3,5,7,9 = (1,874 x 4) =	7,496	
	271,923	
Observation	- 650	
Total Building	271,273	

APPENDIX F-5: FLOOR AREA CALCULATIONS FOR ALTERNATIVE 4A

Basic Allowable Floor Area:

Lot Size: 60.1354 x 207 = 12,448.028 x 14 =		174,272.39 S.F.
Adjacent Lot: 60 x 68.75 x 14 = 57.750 / 2 =		28,875 S.F.
Basic Allowable Building Area		203,147.39 S.F.
BONUSES		
1. Rapid Transit	-0-	
2. BART Access 750 - 85 = 665 x 50 =	17,427	
3. Parking Access	-0-	
4. Multiple Building Access	10,000	
5. Widened Sidewalk	13,260	
6. Shortened Walking Distance 250 x 40	10,000	
7. Plaza	-0-	
8. Side Setback	-0-	
9. Low Coverage	-0-	
10. Observation Deck	10,000	
	60,687	60,687
Total F.A.R. Allowable		263,834.39 S.F.
BUILDING		
Ground Floor	7,990	
2nd Floor	10,159	
3 - 11 = (10,065 x 9) =	90,585	
12 - 24 = (10,011 x 12) =	130,143	
Refurbished Cal-Pacific Ground Floor	1,842	
2 - 11 = (1,874 x 10) =	18,740	
	259,459	
Observation	- 1,300	
Total Building	258,159	

APPENDIX F-6: FLOOR AREA CALCULATIONS FOR ALTERNATIVE 4B

Basic Allowable Floor Area:

Lot Size: 60.1354 x 207 = 12,448.028 x 14 =		174,272.39 S.F.
Adjacent Lot: 60 x 68.75 x 14 = 57.750 / 2 =		28,875 S.F.
Basic Allowable Building Area		203,147.29 S.F.
BONUSES		
1. Rapid Transit	-0-	
2. BART Access 750 - 85 = 665 x 50 =	17,427	
3. Parking Access	-0-	
4. Multiple Building Access	10,000	
5. Widened Sidewalk	13,260	
6. Shortened Walking Distance 250 x 40	10,000	
7. Plaza	-0-	
8. Side Setback	-0-	
9. Low Coverage	-0-	
10. Observation Deck	10,000	
	60,687	60,687
Total F.A.R. Allowable		263,834.39 S.F.
BUILDING		
Ground Floor	7,332	
2nd Floor	10,159	
3 - 10 = (10,265 x 8) =	82,120	
11 - 26 = (10,241 x 16) =	163,856	
	263,467	
Observation	- 1,300	
Total Building	262,167	

APPENDIX G: GEOLOGY AND SEISMOLOGY

TENTATIVE GEOLOGIC PROFILE OF SITE

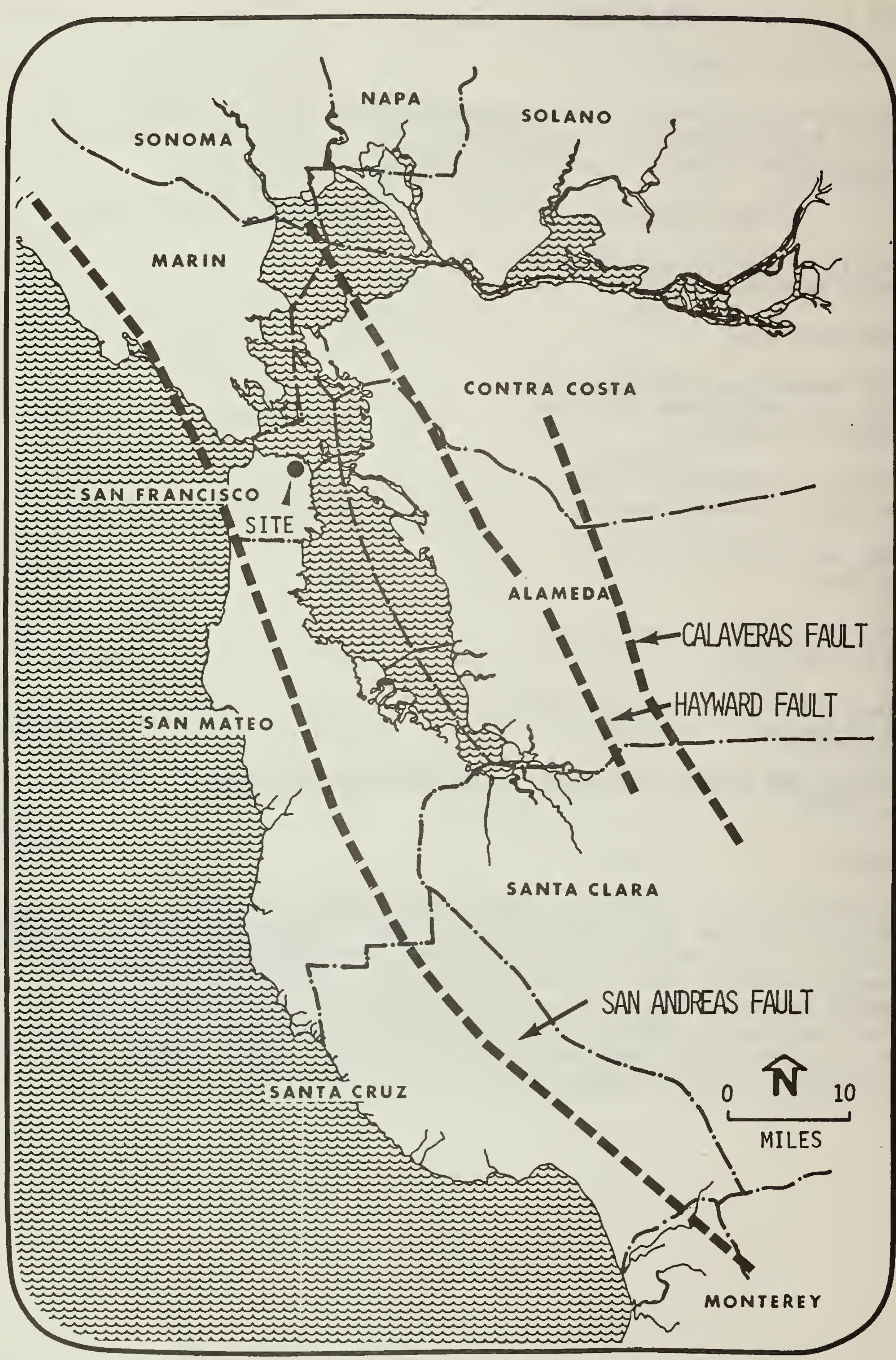
Based upon the soils investigation prepared for the Crocker Northern California Headquarters to be located about 130 ft. southwest of the project site, the following geologic profile is expected at the site:

Geologic Material	Depth Below Ground Surface		
Sand fill, poorly compacted with brick fragments, cinders and trash	0	-	17 ft.
fine dense sand	17	-	22 ft.
Stiff sandy clay with fine sand, fine very dense sand, silty and clayey in some layers	22	-	40 ft.
fine very dense sand, silty and clayey in some layers	40	-	115 ft.
very stiff, silty clay (Old Bay Mud)	115	-	117 ft.
very stiff to hard sandy clay with fine sand	117	-	120 ft.
fine, dense sand, slightly clayey shale bedrock	120	-	122 ft.

Water level was located at a depth of 36 ft. below the ground surface in autumn, 1978.

SEISMOLOGY

The earthquake faults in the San Francisco Bay Region are shown in Figure G-1. Both the San Andreas and the Hayward Faults have a recent history of major and minor movements. Large and small earthquakes can be expected in this region in the future. Within the next 60 to 170 years (estimates of recurrence intervals vary), at least one earthquake of the magnitude of the 1906 San Francisco earthquake (about 8.3 on the Richter scale of magnitude) and several earthquakes comparable to the 1957 Daly City earthquake (about 5.3 on the Richter scale) may be expected to affect the proposed project.



SOURCE: U.S. Geological Survey

FIGURE G-1: EARTHQUAKE FAULTS IN THE SAN FRANCISCO BAY REGION